

CURRICULUM VITAE — Keiichi Umetsu (梅津敬一)

Contact Information

Address: Institute of Astronomy and Astrophysics, Academia Sinica (ASIAA), Taipei, Taiwan
Email: keiichi@asiaa.sinica.edu.tw
Google Scholar Profile: <https://scholar.google.com/citations?user=JHAdrV0AAAAJ>

Academic Positions and Appointments

Executive Board Member, Hyper Suprime-Cam Subaru Strategic Program	(2023–present)
Steering Committee Member, ESA CHEX-MATE Program	(2023–present)
Research Fellow (Full Professor equivalent), ASIAA	(2014–present)
Kavli Visiting Scholar, Kavli Institute for Astronomy and Astrophysics, Peking University	(2016)
Associate Research Fellow (Tenured), ASIAA	(2010–2013)
Adjunct Research Fellow, LeCosPA Center, National Taiwan University (NTU)	(2008–2012)
Tenure-track Assistant Research Fellow, ASIAA	(2006–2009)
Staff Scientist (Assistant Project Scientist for the Y.-T. Lee AMiBA Project), ASIAA	(2005–2006)
Postdoctoral Fellow, ASIAA	(2001–2005)

Education and Degrees

Ph.D. in Astronomy,	Tohoku University,	Japan	(1998–2001)
M.S. in Astronomy,	Tohoku University,	Japan	(1996–1998)
B.S. in Physics,	Tohoku University,	Japan	(1992–1996)

Summary of Publications

- **Research Metrics:** 216 published refereed papers (see the complete publication list below), with > 20,000 citations and an *h*-index of 79 according to Google Scholar as of September 2026.
- **First/Corresponding Authorship:** 25 papers collectively cited > 2,800 times, including 11 first-author papers with > 100 citations each. Five of these highly cited papers were published after my promotion to Research Fellow in 2014.

Honors and Awards

- **Outstanding Research Award (2025), National Science and Technology Council (NSTC), Taiwan** — Two-time recipient; the maximum number permitted per recipient.
- **Outstanding Research Award (2018), National Science and Technology Council (NSTC), Taiwan** — Competitive national research award recognizing sustained research impact and scholarly excellence.
- **Academia Sinica Presidential Scholars Program (2023–2026)** — Academia Sinica-level honorific distinction, featuring a 50% salary enhancement over a three-year term.
- **Academia Sinica Investigator Award (2018–2022; 2023–2027)** — Competitive five-year Academia Sinica grant awarded for two consecutive terms.
- **Academia Sinica Award for Junior Research Investigators (2011)** — Early-career research distinction conferred by Academia Sinica on outstanding faculty at universities and research institutions across Taiwan.
- **Academia Sinica Career Development Award (2009–2013)** — Competitive five-year Academia Sinica grant for early-career faculty.
- **PASJ Excellent Paper Award (2012)** — Awarded to the best paper in PASJ (Okabe, Takada, Umetsu et al. 2010).

Academic Distinctions

- **Founding Member, NASA CLASH (2010)** — Core team member of the flagship Multi-Cycle Treasury program.
- **Invited Review, *The Astronomy and Astrophysics Review* (2020)** — 106-page solo review; > 200 citations.
- **Invited Textbook Co-author (2025)** — Advanced graduate textbook in Japanese: “Gravitational Lensing and Gravitational-Wave Astronomy from the Foundations of General Relativity” (*Nippon Hyoron Sha Co., Ltd.*).
- **Invited Lecturer, International School of Physics “Enrico Fermi” (2008)** — Course CLXXII, *Astrophysics of Galaxy Clusters*.

Key Roles in Major International Collaborations

Directed project-level lensing and multi-probe cluster science across successive international programs, providing robust mass anchors essential for cluster astrophysics and cosmology. This leadership spans the Taiwan-led Y.-T. Lee AMiBA project, where my contributions include commissioning and Sunyaev–Zel'dovich observations as well as service as Science Lead, NASA's Multi-Cycle Treasury CLASH program, ESA's XMM-Newton XXL survey, and ESA's CHEX-MATE program.

Steering Committee Member	XMM-Newton Heritage Program: CHEX-MATE	(2023–present)
Executive Board Member	Hyper Suprime-Cam Subaru Strategic Program (HSC-SSP)	(2023–present)
Co-Chair	CHEX-MATE, Lensing Working Group	(2020–present)
Member	Local Volume Complete Cluster Survey (LoVoCCS)	(2018–present)
Co-PI	ALMA Lensing Cluster Survey (ALCS)	(2018–present)
Member	CHEX-MATE	(2018–present)
Member	Beyond Ultra-deep Frontier Fields & Legacy Observations (BUFFALO)	(2017–present)
Member	Reionization Lensing Cluster Survey (RELICS)	(2015–present)
Member	Subaru Prime Focus Spectrograph (PFS) Collaboration	(2014–present)
Member	J-PAS Survey	(2013–present)
Lensing Lead / Member	XMM Ultimate Extragalactic Survey (XXL)	(2011–present)
Member	VLT Large Program for CLASH	(2011–2017)
Principal Investigator	Caltech Submm Observatory (CSO) Bolocam Program for CLASH	(2011–2013)
Member	Cluster Lensing and Supernova Survey with Hubble (CLASH)	(2009–2017)
Principal Investigator	Subaru Telescope Suprime-Cam Program for CLASH	(2009–2014)
Member	HSC-SSP	(2007–present)
Member	Local Cluster Substructure Survey (LoCuSS)	(2005–2016)
Science Lead	Yuan-Tseh Lee Array for Microwave Background Anisotropy (AMiBA)	(2005–2010)
Member	AMiBA	(2001–2016)

Competitive Telescope Allocations as Principal Investigator

Awarded 16 allocations as PI spanning 2000–2026: eight at the Subaru Telescope, five at the Canada–France–Hawaii Telescope (CFHT), and three at the Caltech Submillimeter Observatory (CSO) using Bolocam. Major program series include:

CLASH	Subaru/Suprime-Cam weak-lensing program (2010B, 2012A, 2013A, 2013B)
CLASH	CSO/Bolocam Sunyaev–Zel'dovich program (2010B, 2011A, 2011B)
CHEX-MATE	CFHT weak-lensing program (2019B, 2020A)
LoVoCCS	Subaru/Hyper Suprime-Cam weak-lensing program (2026B)

Research Grants Awarded as Principal Investigator

Total PI funding awarded: **USD 2.8 million**, converted from NTD at a fixed rate of 30 NTD = 1 USD.

PI	NSTC 115-2112-M-001-027-	NSTC ^(*)	52K USD	(08/2026–07/2027)
PI	NSTC 112-2112-M-001-027-MY3	NSTC	132K USD	(08/2023–03/2027)
PI	AS-IA-112-M04 ⁽¹⁾	Academia Sinica	817K USD	(01/2023–12/2027)
PI	MOST 109-2112-M-001-018-MY3	MOST (NSTC)	128K USD	(08/2020–03/2024)
PI	AS-IA-107-M01 ⁽¹⁾	Academia Sinica	800K USD	(01/2018–12/2022)
PI	MOST 106-2628-M-001-003-MY3 ⁽²⁾	MOST (NSTC)	186K USD	(08/2017–07/2021)
PI	MOST 103-2112-M-001-003-MY3	MOST (NSTC)	11K USD	(01/2016–07/2016)
PI	MOST 103-2112-M-001-030-MY3	MOST (NSTC)	90K USD	(08/2014–10/2017)
PI	NSC 100-2112-M-001-008-MY3	NSC (NSTC)	55K USD	(08/2011–07/2014)
PI	AS-98-CDA-M05 ⁽³⁾	Academia Sinica	370K USD	(01/2009–12/2013)
PI	NSC 95-2112-M-001-020-MY3	NSC (NSTC)	62K USD	(08/2008–01/2012)
PI	NSC 95-2112-M-001-074-MY2	NSC (NSTC)	63K USD	(10/2006–07/2008)

(*) National Science and Technology Council (NSTC), formerly the Ministry of Science and Technology (MOST) and National Science Council (NSC) of Taiwan

(1) Academia Sinica Investigator Award [中央研究院深耕計畫獲獎]

(2) Research grant for Excellent Junior Research Investigators, MOST [科技部優秀年輕學者研究計畫獲獎]

(3) Academia Sinica Career Development Award [中央研究院前瞻計畫獲獎]

Selected Professional Activities and Community Service

- **Journal Referee:** Reviewed manuscripts for research journals, including *The Astrophysical Journal* (ApJ); *The Astrophysical Journal Letters* (ApJL); *Monthly Notices of the Royal Astronomical Society* (MNRAS); *Astronomy & Astrophysics* (A&A); *Journal of Cosmology and Astroparticle Physics* (JCAP); *Physical Review D* (PRD); *The Open Journal of Astrophysics* (OJA); *Proceedings of the Japan Academy, Series B* (PJA Series B); *LSST Dark Energy Science Collaboration Notes*.
- **Funding Agency Reviewer:** Reviewed research proposals for major funding agencies, including the French National Research Agency (ANR); Netherlands Organisation for Scientific Research (NWO); Swiss National Science Foundation (SNSF); National Science and Technology Council (NSTC), Taiwan.
- **Review Committee Member:** Appointed to serve on the Review Committee for the 2027 Academia Sinica Scholar Award, Mathematics and Physical Sciences Division (2026).
- **External Academic Reviewer:** Provided evaluations for academic promotions at institutions, including Caltech (USA).
- **External Science Assessor:** Invited by the Joint ALMA Observatory (JAO) to serve as an External Science Assessor for ALMA Large Programs (Cycle 13, 2026).
- **Observing Proposal Reviewer:** Reviewed proposals for facilities including the XRISM X-ray Satellite; Subaru Telescope; Magellan Telescopes; Canada–France–Hawaii Telescope (CFHT).
- **Thesis Examiner:** Examined Ph.D. theses for candidates at universities in Taiwan, Hong Kong, Italy, and India.

Institutional Leadership and Management Experience (selected key contributions)

Provided sustained institutional leadership in research and faculty development at ASIAA, including serving as Chair of the Faculty Search Committee from 2016 to 2021 and leading faculty searches in 2017, 2018, 2019, and 2021.

Co-organizer	Survey Science Meeting Series, ASIAA	(2026–present)
Chair	Faculty Search Committee, ASIAA	(2016–2021)
Chair	Taiwanese Time Allocation Committee for CFHT	(2018A, 2018B, 2019A, 2019B)
Co-organizer	ASIAA–NTU Joint Colloquium Series	(2015–2018)
Member	Faculty Search Committee, ASIAA	(2014–2022)
Member	Promotion and Appointment Committee, ASIAA	(2014–2022, 2026–present)
Member	Research Manpower Committee, ASIAA	(2012–2014, 2021–present)
Member	Standing Executive Committee, ASIAA	(2011–2014)
Chair	Research Manpower Committee, ASIAA	(2011–2012)
Chair	Postdoctoral Search and Liaison Committee, ASIAA	(2009–2012)
	(renamed continuation of the same committee)	

Teaching Experience

Delivered invited lectures at international schools and universities, including the “Enrico Fermi” International School of Physics.

- Guest lecturer for General Astronomy, Yuan-Zhe University, Taiwan (November 21, 2019) [**invited**]: 90-min lecture titled “*My Journey through Taiwan: from Gravitational Lensing to Dark Matter*”
- Lecturer for TIARA Winter School on Galaxies and Stellar Clusters, NTHU, Taiwan (January 25–29, 2010) [**invited**]: 75-min lecture titled “*Lensing and AMiBA Studies of Galaxy Clusters*”
- Lecturer for Joint LeCosPA-FGCPA Summer School on Cosmology, NTU, Taiwan (June 20–23, 2009) [**invited**]: 80-min lectures on “*The Large-Scale Structure in the Universe (I)*” and “*(II)*”
- Lecturer for International School of Physics “Enrico Fermi”, Course CLXXII, Varenna, Italy (July 15–25, 2008) [**invited**]: 60-min lectures on “*Cluster Weak Gravitational Lensing*” and “*CMB Interferometer*”
- Guest lecturer for Department of Physics, NTU, Taiwan (May 12–14, 2008) [**invited**]: Taught a series of lectures (3 hours) on “*Cosmology and Gravitational Lensing*”
- Lecturer for ASIAA Summer Student Program, ASIAA (2006, 2007, 2010, 2011) [**invited**]: Delivered 60-min introductory lectures on physical cosmology and gravitational lensing
- Guest lecturer for Astronomical Institute, Tohoku University, Japan (June 28–July 2, 2004) [**invited**]: Taught a series of lectures (6 hours) on “*Weak Gravitational Lensing: Theory, Methods, and Applications*”

Public Engagement in Education and Outreach

Promoting astrophysics to diverse audiences through public talks, media features, and outreach activities in Taiwan and beyond.

- Public lecture in Japanese at Nagai Teen's University [中学生のための大学], Nagai City Library, Yamagata, Japan (October 21, 2026; scheduled): “見えない宇宙をどう見るか — ダークマターと宇宙の進化の謎 —”
- Public lecture in Japanese at Nagai Teen's University [中学生のための大学], Nagai City Library, Yamagata, Japan (October 15, 2025): “重力レンズ現象と宇宙の大構造”
- Guest lecture in Japanese for visiting students from Osaka Public University at ASIAA (January 16, 2025): “*Overview of ASIAA and My Research on Dark Matter through Gravitational Lensing*”
- Public lecture in Japanese at Nagai Cross-industrial Exchange Meeting [長井異業種研究会], Yamagata, Japan (October 18, 2023): “宇宙の蜃気楼: 重力レンズで見る世界とダークマター”
- Public lecture in Chinese for “Prospect Lecture Series: 100 Years of Spacetime Distortion” [2019 展望系列科學普及演講], NTU, Taiwan (May 31, 2019): “經由重力透鏡探索暗物質: *Looking at Dark Matter through Gravitational Lenses*”
- Media interview in Chinese by Unique Satellite TV [非凡電視台] at the Ministry of Science and Technology Outstanding Research Award Ceremony, Taiwan (May 24, 2019)
- Public lecture in Chinese for “NTU Azalea Festival 2017” [2017 臺大杜鵑花節], Taiwan (March 11, 2017): “*Gravitational Lensing in the Universe*”
- Media interview in Chinese by Central News Agency [中央社 CNA], Taiwan (December 2013): “日本女婿星繫台灣”
- Public lecture in Chinese for “Special Open House for NTU Undergraduate Students”, ASIAA (April 11, 2010): “*Cosmology and Extragalactic Projects at ASIAA*”
- Media interview by Scientific American Taiwan Edition (October 3, 2008)
- Public lecture in Chinese for “Special Open House for NTU Undergraduate Students”, ASIAA (March 23, 2008): “*Introduction to Cosmology*”

Research Staff and Scholars Mentored or Hosted at ASIAA

Sangjun Cha	EACOA Fellow	(09/2026–present)
Bau-Ching Hsieh	Project Research Manager, ASIAA	(05/2019–present)
Shutaro Ueda	NSTC Research Scholar	(08/2022–01/2025) → Assoc. Prof., Kanazawa U.
Sandor M. Molnar	Visiting Assoc. Professor, ASIAA	(01/2016–08/2020) → Retired from ASIAA
Bau-Ching Hsieh	Support Scientist, ASIAA	(01/2013–04/2019) → Research Manager, ASIAA

Postdoctoral Researchers Supervised at ASIAA as PI

Michele Pizzardo	(05/2025–present)
Chayan Mondal [†]	(06/2024–09/2025) → Faculty, S. N. Bose National Centre for Basic Sciences, India
Shouvik Roy Choudhury [†]	(07/2023–present)
Sut-leng Tam	(09/2020–07/2024) → Tenure-track Assistant Professor, NYCU, Taiwan
Luis A. Díaz Garcia	(08/2018–06/2020) → Severo Ochoa Fellow, IAA-CSIC, Spain
Shutaro Ueda	(04/2018–03/2022) → Associate Professor, Kanazawa University, Japan
I-Non Chiu	(06/2016–12/2020) → Associate Professor, NCKU, Taiwan
Yuichi Higuchi	(05/2016–01/2019) → Data Scientist, Accenture, Japan
Nicole Czakon	(07/2013–08/2016) → Staff Data Scientist, Slack, USA
Jean Coupon	(01/2012–09/2013) → Data Scientist, Expedia, Switzerland
Nobuhiro Okabe	(06/2009–08/2013) → Associate Professor, Hiroshima University, Japan

[†] ASIAA Distinguished Postdoctoral Fellow

External Visiting Scholars Hosted at ASIAA

Sandor M. Molnar	Visiting Scholar, Konkoly Observatory, Hungary	(09/2020–present)
Toshifumi Futamase	Professor Emeritus, Tohoku University, Japan	(06/2023–07/2025)
Adam Amara	Professor and Head, Math/Physics, University of Surrey, UK	(01/2019–07/2024)
Chieh-An Lin	Ph.D. student, CEA Saclay, France	(02/2016–03/2016)
Chieh-An Lin	Ph.D. student, CEA Saclay, France	(11/2014–01/2015)
Hiroyuki Ikeda	JSPS Postdoctoral Fellow, Japan	(04/2014–03/2015)
Tom Broadhurst	Ikerbasque Professor, University of the Basque Country, Spain	(01/2009–07/2024)

Graduate Students and Research Assistants Supervised

Hsin Fan	PhD, NTU/Astrophys	(11/2023–08/2025)	co-advised by Prof. Hsi-Yu Schive
Sut-leng Tam	Master, NTU/Physics	(10/2014–08/2016)	
James H.-S. Chan	Research Assistant, ASIAA	(09/2009–12/2010)	
Li-Yen Hsu	Master, NTU/Physics	(01/2009–07/2010)	
Chia-Jung Shih	Master, NTU/Astrophys	(07/2007–07/2009)	
Yi-Jung Yang	Research Assistant, ASIAA	(07/2007–10/2007)	

Undergraduate Students Supervised

Fang-Chia Lee	Research Assistant, ASIAA	(10/2006–07/2007)
Chia-Jung Shih	ASIAA Summer Student, ASIAA	(06/2006–08/2006)
Yang-Ting Chien	ASIAA Summer Student, ASIAA	(06/2002–08/2002)

Selected Invited Talks at International Conferences and Workshops

- 2027 Annual Meeting of the Physical Society of Taiwan, Hsinchu (NTHU), Taiwan, January 19–21, 2027 [**invited** (one of invited speakers in Astrophysics/Gravity & Cosmology); title forthcoming]
- The 12th KIAS Workshop on Cosmology and Structure Formation, Seoul (Korea Institute for Advanced Study), Korea, November 1–7, 2026 [**invited**; scheduled; title forthcoming]: *“Multi-Probe Inference with Galaxy Clusters: From Population Cosmology to Non-equilibrium Outskirts”*
- New Frontiers in Observational Cosmology with Gravitational Waves and Cosmic Microwave Background (GW-CMB 2025), National Central University, Taiwan, November 6–7, 2025 [**invited**]: *“Dark Matter and Baryons beyond Equilibrium: Cluster Outskirts and Infall”*
- 2025 Merging Cluster Workshop, Yonsei University, Seoul, Korea, October 27–30, 2025 [**invited**]: *“Dissecting Cluster Infall and Substructure via Equilibrium-Free Dynamics and Lensing”*
- Tracing Cosmic Evolution with Galaxy Clusters V, Sesto, Italy, July 7–11, 2025 [**invited**]: *“Weak Lensing in the Era of Multi-Probe Cluster Cosmology and Astrophysics”*
- The 11th KIAS Workshop on Cosmology and Structure Formation, October 27–November 2, 2024 (special arrangement made to give the invited talk remotely) [**invited**]: *“Advancing Cluster Lensing Mass Inversion: Joint Analysis of Weak Lensing and Escape Velocity Measurements around Galaxy Clusters”*
- Mini Workshop on AGN and Galaxy Evolution, Yuan-Zhe University, Taiwan, August 10–11, 2023 [**invited**]: *“Testing Models of Cosmic Structure Formation with Combined Weak and Strong Gravitational Lensing in Galaxy Clusters”*
- Lensing at Different Scales: Strong, Weak, and Synergies between the Two, Kavli Institute for Cosmological Physics (KICP) of the University of Chicago, USA, July 31–August 4, 2023 [**invited**]: *“Testing Models of Structure Formation with Combined Strong and Weak Gravitational Lensing in Galaxy Clusters”*
- Dissecting Cluster Cosmology: toward a Roadmap for Forthcoming Cluster Surveys, Trieste (Institute for the Fundamental Physics of the Universe), Italy, July 3–7, 2023 [**invited**]: *“Cosmological Mass Calibration of Galaxy Clusters with Weak Lensing: Gaussian-Likelihood and Likelihood-Free Approaches”*
- The 2022 NSTC International Researcher Workshop, Department of Natural Sciences and Sustainable Development, National Science and Technology Council (NSTC), Taiwan, November 16, 2022 [**invited**]: *“My Research with International Collaboration in Taiwan”*
- 2022 Spring Symposium – Galaxy Clusters: Challenging Our Cosmological Perspectives, Space Telescope Science Institute (STScI), USA, April 25–29, 2022 (arranged as a fully virtual conference due to the COVID-19 pandemic) [**invited**]: *“Probing Dark Matter Structure with Strong and Weak Lensing from Space”*
- A Multi-Wavelength View of Galaxy Clusters: Deriving Masses in the Era of Wide-Field Surveys, Madrid (ESA/ESAC), Spain, September 8–10, 2020 → postponed to a virtual conference on September 6–9, 2021 due to the COVID-19 pandemic [**invited review**]: *“Weak Lensing Mass Measurements and Mass Scaling Relations on Cluster–Group Scales”*
- The 9th KIAS Workshop on Cosmology and Structure Formation, Seoul (Korea Institute for Advanced Study), Korea, November 2–8, 2020 (hybrid online/in-person conferencing due to the COVID-19 pandemic) [**SOC, invited**]: *“A Short Final Remark”*
- SkyPy Project Meeting, Manchester, UK (→ changed to an online meeting due to the COVID-19 pandemic), April 15–17, 2020 [**invited**]: *“Galaxy Cluster Modeling”*
- The First Shanghai Assembly on Cosmology and Galaxy Formation, Shanghai (Shanghai Jiao Tong University), China, November 4–8, 2019 [**invited**]: *“Unveiling Cosmic Structure Formation by Cluster Lensing”*
- MATERA OSCURA: Cosmology and Dark Matter within Galaxies and Clusters, Matera, Italy, September 2–6, 2019

[invited review]: *“Unveiling the Mass Structure of Galaxy Clusters from Lensing and Multiwavelength Observations”*

17. Tracing Cosmic Evolution with Clusters of Galaxies IV, Sesto, Italy, July 8–12, 2019 [invited]: *“Unveiling Cosmic Structure Formation with Cluster Lensing”*
18. Joint XXL-HSC Collaboration Meeting, Ovronnaz, Switzerland, July 4–5, 2019 [invited]: *“The Fundamental Plane of Galaxy Clusters”*
19. Cosmology Frontier in Particle Physics: Astroparticle Physics and Early Universe, Taipei (NTU), Taiwan, September 27–29, 2018 [invited]: *“Testing CDM Predictions with Galaxy Cluster Gravitational Lensing”*
20. The 5th Korea-Japan Workshop on Dark Energy, Daejeon (Korea Astronomy and Space Science Institute), Korea, August 6–10, 2018 [invited]: *“Discovery of a New Fundamental Plane Dictating Galaxy Cluster Evolution from Gravitational Lensing”*
21. SnowCluster 2018: The Physics of Galaxy Clusters, Snowbird, Utah, USA, March 18–23, 2018 [invited]: *“Discovery of a New Fundamental Plane Dictating Galaxy Cluster Evolution from Gravitational Lensing”*
22. 2018 Annual Meeting of the Physical Society of Taiwan, Taipei (NTU), Taiwan, January 24–26, 2018 [invited (one of 4 invited speakers in Astrophysics/Gravity & Cosmology)]: *“Formation and Growth of Cosmic Giants: Lensing View of Galaxy Cluster Halos”*
23. First of a three-part conference series (Asia/Australia, America, Europe) organized by UCLA: Shedding Light on the Dark Universe with Extremely Large Telescopes, Lanzhou, China, August 30–September 2, 2017 [invited]: *“Testing LCDM Predictions with Cluster Lensing in the ELT Era”*
24. Exploring Dark Matter and Dark Ages with Lensing Clusters, Sesto, Italy, July 24–28, 2017 [invited]: *“Characterizing Galaxy Clusters with Gravitational Lensing: Halo Shape and Splashback Radius”*
25. Subaru International Partnership Science and Instrumentation Workshop, Tokyo (NAOJ), Japan, March 22–24, 2017 [invited]: *“Cluster Gravitational Lensing with Subaru”*
26. The 10th East Asian Meeting on Astronomy (EAMA10), Seoul (Seoul National University), Korea, September, 27–30, 2016 [invited]: *“Ensemble Mass Distribution of Galaxy Clusters from the CLASH Survey”*
27. Clusters with Nick Kaiser Day, Hong Kong (IAS/HKUST), February 17, 2016 [invited]: *“Recent Progress in Cluster Weak Lensing”*
28. The 6th KIAS Workshop on Cosmology and Structure Formation, Seoul (Korea Institute for Advanced Study), Korea, November 3–6, 2014 [invited]: *“Subaru Shear-and-Magnification Weak-Lensing Analysis of CLASH Galaxy Clusters”*
29. Synergy of HSC and Hiroshima CORE-U Projects, Hiroshima (Hiroshima University), Japan, August 27, 2014 [invited]: *“Subaru Weak-Lensing Shear and Magnification Analysis of CLASH Galaxy Clusters”*
30. Clusters Paris 2014: Future Directions in Galaxy Cluster Surveys, Paris, France, June 23–27, 2014 [invited]: *“CLASH: Subaru Weak-Lensing Results”*
31. PASCOS 2013: 19th International Symposium on Particles, Strings and Cosmology, Taipei, Taiwan, November 20–26, 2013 [invited]: *“Mass Distribution in and around Galaxy Clusters from Gravitational Lensing”*
32. Copenhagen-Asia-America Network for Dark cosmology (CAANDY) kick-off meeting, Copenhagen (DARK Cosmology Centre), Denmark, August 12–17, 2013 [invited]: *“Cosmology and Cluster Astrophysics Programs at ASIAA”*
33. Tracing Cosmic Evolution with Clusters of Galaxies III, Sesto, Italy, July 1–5, 2013 [invited review]: *“Cluster Mass Distribution from Weak-Lensing Shear and Magnification”*
34. SZX HUNTSVILLE 2011: Cosmology with X-ray and Sunyaev-Zeldovich Effect Observations of Galaxy Clusters, Huntsville, USA, September 19–22, 2011 [invited]: *“Mass and Hot Baryons from Cluster Lensing and SZE Observations”*
35. XXL Consortium Meeting, Corsica, France, May 2–6, 2011 [invited]: *“Cluster Weak Gravitational Lensing With Subaru Observations”*
36. APCTP Topical Research Program 2010: Recent Progress in Dark Universe and Astrophysics, Seoul, Korea, December 16–17, 2010 [invited]: *“Galaxy Cluster Gravitational Lensing as a Cosmological Probe”*
37. Horiba International Conference: COSMO/CosPA 2010, Tokyo (University of Tokyo), Japan, September 26 – October 1, 2010 [invited]: *“Probing the Distribution of Mass in Clusters of Galaxies using Weak + Strong Gravitational Lensing”*
38. CMB Workshop, Tokyo (NAOJ), Japan, June 7–9, 2010 [invited]: *“The AMiBA Project and the Cluster Cosmology Program in Taiwan”*
39. Japan-Princeton Subaru HSC Science/Survey Workshop, Tokyo (NAOJ), Japan, January 17–20, 2009 [invited]: *“Cluster Multiwavelength Studies”*

40. Subaru Users Meeting 2007: New Strategy of Subaru (II), Tokyo (NAOJ), Japan, January 29–31, 2008 **[invited]**: *“ASIAA Research Highlights and Prospects with HSC”*
41. CosPA 2007: International Symposium on Cosmology and Particle Astrophysics, Taipei (NTU), Taiwan, November 13–15, 2007 **[invited]**: *“A Moment Method for Measuring the Higher-Order Weak Lensing Effects”*
42. Asia Science Forum, Sendai (Sendai International Center), Japan, September 10–11, 2007 **[invited]**: *“Progress of the AMiBA Project”*
43. The 21st Century Center-of-Excellence Program “Exploring New Science by Bridging Particle-Matter Hierarchy”, Sendai (Tohoku University), Japan, February 14–16, 2007 **[invited]**: *“Status of the AMiBA Project”*
44. CosPA 2006: International Symposium on Cosmology and Particle Astrophysics, Taipei (NTU), Taiwan, November 15–17, 2006 **[invited]**: *“Probing the Distribution of Mass in Galaxy Clusters using Subaru Weak Lensing Observations”*
45. Zao Cluster Workshop, Zao, Japan, October 24–26, 2006 **[invited]**: *“Weak Lensing Analysis of Galaxy Clusters”*
46. Inaugural Japan-Taiwan ALMA Science Workshop, Taipei, Taiwan, December 15–16, 2005 **[invited]**: *“SZ Science with AMiBA and ALMA”*

Selected Colloquia and Seminars

1. Colloquium, Department of Physics and Astronomy, Seoul National University, Korea, November 2026 **[invited]**; scheduled; title forthcoming]
2. Seminar, Manipal Centre for Natural Sciences Centre of Excellence, Manipal Academy of Higher Education, India, August 20, 2025 (online conferencing) **[invited]**: *“Weak Lensing in the Multi-Probe Era of Cluster Cosmology and Astrophysics”*
3. Colloquium, Institute of Astronomy, National Central University, Taiwan, November 29, 2024 **[invited]**: *“Unveiling Dark Matter and Structure Formation through Multi-probe Observations of Galaxy Clusters”*
4. Colloquium, Physics Department, National Cheng Kung University, Taiwan, March 17, 2023 **[invited]**: *“Testing the Collisionless Nature of Dark Matter using Gravitational Lensing in Galaxy Clusters”*
5. Colloquium, South-Western Institute for Astronomy Research (SWIFAR), Yunnan University, China (online conferencing due to the COVID-19 pandemic), September 3, 2020 **[invited]**: *“Unveiling Cosmic Structure Formation by Cluster Weak Lensing”*
6. HSC Online Seminar Series, Subaru HSC Collaboration (Japan, Taiwan, USA+), June 16, 2020 **[invited]**: *“HSC-XXL: Weak-lensing Mass Measurements and Scaling Relations on Cluster-Group Scales”*
7. Seminar, Leung Center for Cosmology and Particle Astrophysics (LeCosPA), NTU, Taiwan, October 22, 2018 **[invited]**: *“Testing Cold Dark Matter Models with Galaxy Cluster Gravitational Lensing”*
8. Astronomy Colloquium, Department of Physics and Institute of Astronomy, National Tsing-Hua University, Taiwan, October 5, 2018 **[invited]**: *“Testing CDM Predictions with Galaxy Cluster Gravitational Lensing”*
9. Seminar, High-Energy Theory Group, Institute of Physics, Academia Sinica, Taiwan, September 19, 2018 **[invited]**: *“Testing CDM Predictions with Galaxy Cluster Gravitational Lensing”*
10. Colloquium, Institute of Astronomy, National Central University, Taiwan, December 2, 2016 **[invited]**: *“Lensing Constraints on the Mass Profile Shape and Splashback Radius of Galaxy Clusters”*
11. Seminar, National Astronomical Observatories of China, Chinese Academy of Sciences, China, May 20, 2016 **[invited]**: *“Ensemble Mass Distribution of Galaxy Clusters from the CLASH Survey: Concentration–Mass Relation, Stacked Mass Profile, and Splashback Radius”*
12. Colloquium, Department of Astronomy, Shanghai Jiaotong University, China, May 16, 2016 **[invited]**: *“Ensemble Mass Distribution of Galaxy Clusters from the CLASH Survey: Concentration–Mass Relation, Stacked Mass Profile, and Splashback Radius”*
13. Seminar, Key Lab for Astrophysics, Shanghai Normal University, China, May 13, 2016 **[invited]**: *“Ensemble Mass Distribution of Galaxy Clusters from the CLASH Survey: Concentration–Mass Relation, Stacked Mass Profile, and Splashback Radius”*
14. KIAA-PKU Colloquium, Kavli Institute for Astronomy & Astrophysics, Peking University, China, May 11, 2016 **[invited]**: *“Ensemble Mass Distribution of Galaxy Clusters from the CLASH Survey: Concentration–Mass Relation, Stacked Mass Profile, and Splashback Radius”*
15. Colloquium, Astronomical Institute, Tohoku University, Japan, June 30, 2015 **[invited]**: *“The Full Strength of Cluster Gravitational Lensing: Mass Distribution in and around Cosmic Giants from the CLASH Survey”*
16. Seminar, Department of Physics, University of Hong Kong, Hong Kong, December 4, 2014 **[invited]**: *“The Full Strength of Cluster Gravitational Lensing: Distribution of Matter in and around Cosmic Giants from the CLASH Survey”*

17. HEP Seminar, National Center for Theoretical Sciences, National Tsing-Hua University, Taiwan, September 18, 2014 [**invited**]: “*Weak Gravitational Lensing Effects by Galaxy Clusters*”
18. Astrophysics Colloquium, NASA Jet Propulsion Laboratory (JPL), USA, April 24, 2014 [**invited**]: “*CLASH: Weak-Lensing Shear and Magnification Analysis of 20 Galaxy Clusters*”
19. Colloquium, Institute of Astronomy, National Tsing-Hua University, Taiwan, April 20, 2012 [**invited**]: “*Clusters of Galaxies as Cosmic Lenses*”
20. Colloquium, Institute of Physics, Academia Sinica, Taiwan, June 21, 2011 [**invited**]: “*Galaxy Cluster Gravitational Lensing as Cosmological Probes*”
21. Colloquium, Department of Physics, Hokkaido University, Japan, June 11, 2010 [**invited**]: “*Galaxy Cluster Gravitational Lensing as a Cosmological Probe*”
22. Colloquium, Institute of Astronomy, National Central University, Taiwan, April 9, 2010 [**invited**]: “*Probing the Dark Matter Density Profile by Galaxy Cluster Gravitational Lensing*”
23. Astrophysics Seminar in Fall Semester, Department of Physics, NTU, Taiwan, November 6, 2008 [**invited**]: “*Cluster Weak Lensing and Sunyaev-Zel'dovich Effects in AMiBA Galaxy Clusters*”
24. Astrophysics Seminar in Spring Semester, Department of Physics, NTU, Taiwan, May 29, 2008 [**invited**]: “*Testing LCDM with Cluster Gravitational Lensing*”
25. Colloquium, Institute of Astronomy, National Central University, Taiwan, April 20, 2007 [**invited**]: “*Gravitational Lensing in Galaxy Clusters*”
26. Seminar, National Center for Theoretical Sciences, NTU, Taiwan, November 30, 2006 [**invited**]: “*Probing Dark Energy and Dark Matter with Gravitational Lensing*”

Selected Key Publications and Scientific Achievements

My research seeks to understand the assembly and fundamental nature of dark matter across cosmic time, using galaxy clusters as natural laboratories and gravitational lensing as a direct probe of the mass distribution in the Universe. The representative publications below trace this program from robust cluster-lensing mass reconstruction, through tests of dark-matter structure and halo assembly, to physically interpretable inference for multi-probe survey science.

- Publications are listed in reverse-chronological order. Papers currently submitted to refereed journals are marked in blue.
- My name is underlined. An asterisk (*) indicates the corresponding author. Double underlining indicates students or postdoctoral researchers whom I directly supervised or mentored in the work reported in the publication. Citation counts are from Google Scholar.

1. Keiichi Umetsu*, “*Why Azimuthal Averaging Works in Halo Lensing: Symmetry and Power Counting for Nonlinear Shear and Magnification*”, **submitted to The Astrophysical Journal** (arXiv:2609.08825)
→ Developed a symmetry- and power-counting framework explaining why the mean-field approximation in halo lensing is accurate. Demonstrated percent-level population-median residuals in triaxial-halo populations.
2. Keiichi Umetsu*, Raphael Gavazzi, Mauro Sereno, Nobuhiro Okabe, Emmanuel Bertin, Gianluca Castignani, Stefano Ettori, Fabio Gastaldello, Carlo Giocoli, Scott T. Kay, Junhan Kim, Maggie Lieu, Lorenzo Lovisari, Ben J. Maughan, Mario Nonino, Lorenzo Pizzuti, Etienne Pointecouteau, Gabriel W. Pratt, Mario Radovich, Elena Rasia, Mariachiara Rossetti, Harshda Saxena, & Jack Sayers, “*CHEX-MATE: AMALGAM Weak-lensing Analysis of 41 Planck Sunyaev–Zel'dovich-selected Galaxy Clusters*”, **submitted to Astronomy & Astrophysics** (arXiv:2606.24142)
→ Led the homogeneous weak-lensing analysis of 41 Planck Sunyaev–Zel'dovich-selected galaxy clusters, providing the first population-level weak-lensing mass calibration for CHEX-MATE.
3. Keiichi Umetsu*, Michele Pizzardo, Antonaldo Diaferio, & Margaret J. Geller, “*Cluster Lensing Mass Inversion (CLUMI+): Combining Dynamics and Weak Lensing around Galaxy Clusters*”, **The Astrophysical Journal**, 990(1), 70 (September 2025) [7 citations]
→ Developed the CLUMI+ framework, which enables joint inference of the gravitational potential in and around galaxy clusters from gravitational lensing and galaxy kinematics without assuming dynamical equilibrium.
4. Sut-leng Tam*, Keiichi Umetsu, Andrew Robertson, & Ian G. McCarthy, “*Testing the Collisionless Nature of Dark Matter with the Radial Acceleration Relation in Galaxy Clusters*”, **The Astrophysical Journal**, 953(2), 169 (August 2023) [7 citations]
→ Turned the cluster-scale radial acceleration relation into a quantitative test of dark-matter self-interactions using matched CDM and SIDM cosmological hydrodynamical simulations.
5. Keiichi Umetsu*, Shutaro Ueda, Bau-Ching Hsieh, Mario Nonino, I-Non Chiu, Masamune Oguri, Sandor M. Molnar, Anton M. Koekemoer, & Sut-leng Tam, “*Line-of-sight Elongation and Hydrostatic Mass Bias of the Frontier Fields*”

- Galaxy Cluster Abell 370*", **The Astrophysical Journal**, 934(2), 169 (August 2022) [13 citations]
→ Revealed extreme line-of-sight elongation and substantial hydrostatic mass bias in the massive merging cluster Abell 370 through joint weak-lensing and X-ray analysis.
6. Sut-leng Tam, Keiichi Umetsu*, & Adam Amara, "*Likelihood-free Forward Modeling for Cluster Weak Lensing and Cosmology*", **The Astrophysical Journal**, 925(2), 145 (February 2022) [20 citations]
→ Developed the first simulation-based framework to combine cluster-abundance evolution with cosmology-dependent weak-lensing mass calibration self-consistently, without requiring an explicit analytic likelihood.
 7. Keiichi Umetsu*, "*Cluster–Galaxy Weak Lensing*", **The Astronomy and Astrophysics Review**, 28(1), 7 (December 2020) [204 citations]
→ Authored an invited, 106-page solo review that synthesizes the theoretical foundations, methodology, and scientific reach of cluster–galaxy weak lensing for the broader astrophysical community.
 8. Yong Tian*, Keiichi Umetsu, Chung-Ming Ko, Megan Donahue, & I-Non Chiu, "*The Radial Acceleration Relation in CLASH Galaxy Clusters*", **The Astrophysical Journal**, 896(1), 70 (June 2020) [81 citations]
→ Established the first lensing-based radial acceleration relation spanning brightest-cluster-galaxy and cluster scales, without relying on equilibrium assumptions and while accounting for the full baryonic mass budget.
 9. Keiichi Umetsu*, Mauro Sereno, Maggie Lieu, Hironao Miyatake, Elinor Medezinski, Atsushi J. Nishizawa, Paul Giles, Fabio Gastaldello, Ian G. McCarthy, Martin Kilbinger, Mark Birkinshaw, Stefano Ettori, Nobuhiro Okabe, I-Non Chiu, Jean Coupon, Dominique Eckert, Yutaka Fujita, Yuichi Higuchi, Elias Koulouridis, Ben Maughan, Satoshi Miyazaki, Masamune Oguri, Florian Pacaud, Marguerite Pierre, David Rapetti, & Graham P. Smith, "*Weak-lensing Analysis of X-Ray-selected XXL Galaxy Groups and Clusters with Subaru HSC Data*", **The Astrophysical Journal**, 890(2), 148 (February 2020) [118 citations]
→ Led the HSC weak-lensing calibration of 136 X-ray-selected XXL groups and clusters, providing a robust mass anchor across two decades in halo mass for multi-probe cluster cosmology.
 10. Keiichi Umetsu*, Mauro Sereno, Sut-leng Tam, I-Non Chiu, Zuhui Fan, Stefano Ettori, Daniel Gruen, Teppei Okumura, Elinor Medezinski, Megan Donahue, Massimo Meneghetti, Brenda Frye, Anton Koekemoer, Tom Broadhurst, Adi Zitrin, Italo Balestra, Narciso Benitez, Yuichi Higuchi, Peter Melchior, Amata Mercurio, Julian Merten, Alberto Molino, Mario Nonino, Marc Postman, Piero Rosati, Jack Sayers, & Stella Seitz, "*The Projected Dark and Baryonic Ellipsoidal Structure of 20 CLASH Galaxy Clusters*", **The Astrophysical Journal**, 860(2), 104 (June 2018) [78 citations]
→ Measured the ensemble projected halo ellipticity of 20 CLASH clusters from two-dimensional shear maps with magnification constraints, and demonstrated close alignment of the dark-matter and X-ray gas distributions.
 11. Keiichi Umetsu* & Benedikt Diemer, "*Lensing Constraints on the Mass Profile Shape and the Splashback Radius of Galaxy Clusters*", **The Astrophysical Journal**, 836(2), 231 (February 2017) [115 citations]
→ Provided the first direct lensing constraint on the splashback radius, opening gravitational lensing as a probe of physical halo boundaries and accretion dynamics.
 12. Keiichi Umetsu*, Adi Zitrin, Daniel Gruen, Julian Merten, Megan Donahue, & Marc Postman, "*CLASH: Joint Analysis of Strong-lensing, Weak-lensing Shear, and Magnification Data for 20 Galaxy Clusters*", **The Astrophysical Journal**, 821(2), 116 (April 2016) [305 citations]
→ Delivered the benchmark joint strong- and weak-lensing analysis of 20 CLASH clusters, demonstrating a cuspy ensemble total-mass profile and Λ CDM-consistent concentrations for the X-ray-selected subsample.
 13. Keiichi Umetsu*, Mauro Sereno, Elinor Medezinski, Mario Nonino, Tony Mroczkowski, Jose M. Diego, Stefano Ettori, Nobuhiro Okabe, Tom Broadhurst, & Doron Lemze, "*Three-dimensional Multi-probe Analysis of the Galaxy Cluster A1689*", **The Astrophysical Journal**, 806(2), 207 (June 2015) [82 citations]
→ Advanced three-dimensional multi-probe inference for Abell 1689 by jointly modeling strong and weak lensing, X-ray, and Sunyaev–Zel'dovich data in a triaxial framework, constraining its intrinsic geometry and hydrostatic bias.
 14. Keiichi Umetsu*, Elinor Medezinski, Mario Nonino, Julian Merten, Marc Postman, Massimo Meneghetti, Megan Donahue, Nicole Czakon, Alberto Molino, Stella Seitz, Daniel Gruen, Doron Lemze, Italo Balestra, Narciso Benitez, Andrea Biviano, Tom Broadhurst, Holland Ford, Claudio Grillo, Anton Koekemoer, Peter Melchior, Amata Mercurio, John Moustakas, Piero Rosati, & Adi Zitrin, "*CLASH: Weak-Lensing Shear-and-Magnification Analysis of 20 Galaxy Clusters*", **The Astrophysical Journal**, 795(2), 163 (November 2014) [419 citations]
→ Established the homogeneous shear-and-magnification weak-lensing analysis of 20 CLASH clusters, delivering mass-profile reconstructions and halo-mass measurements with controlled systematics.
 15. Keiichi Umetsu*, "*Model-Free Multi-Probe Lensing Reconstruction of Cluster Mass Profiles*", **The Astrophysical Journal**, 769(1), 13 (May 2013) [48 citations]
→ Developed the CLUMI framework, combining weak-lensing shear and magnification to break the mass-sheet degeneracy and incorporating strong-lensing constraints to extend mass reconstruction into cluster cores.
 16. Keiichi Umetsu*, Elinor Medezinski, Mario Nonino, Julian Merten, Adi Zitrin, Alberto Molino, Claudio Grillo, Mauricio

Carrasco, Megan Donahue, Andisheh Mahdavi, Dan Coe, Marc Postman, Anton Koekemoer, Nicole Czakon, Jack Sayers, Tony Mroczkowski, Sunil Golwala, Patrick M. Koch, Kai-Yang Lin, Sandor M. Molnar, Piero Rosati, Italo Balestra, Amata Mercurio, Marco Scodeggio, Andrea Biviano, Timo Anguita, Leopoldo Infante, Gregor Seidel, Irene Sendra, Stephanie Jouvel, Ole Host, Doron Lemze, Tom Broadhurst, Massimo Meneghetti, Leonidas Moustakas, Matthias Bartelmann, Narciso Benitez, Rychard Bouwens, Larry Bradley, Holland Ford, Yolanda Jimenez-Teja, Daniel Kelson, Ofer Lahav, Peter Melchior, John Moustakas, Sara Ogaz, Stella Seitz, & Wei Zheng, “CLASH: Mass Distribution in and around the Galaxy Cluster MACS J1206.2-0847 from a Full Cluster Lensing Analysis”, **The Astrophysical Journal**, 755(1), 56 (August 2012) [170 citations]

→ Established the first benchmark full-lensing analysis in CLASH by combining weak-lensing shear and magnification with strong-lensing constraints and demonstrating consistency across semi-independent strong-lens models.

17. Keiichi Umetsu*, Tom Broadhurst, Adi Zitrin, Elinor Medezinski, Dan Coe, & Marc Postman, “A Precise Cluster Mass Profile Averaged from the Highest Quality Lensing Data”, **The Astrophysical Journal**, 738(1), 41 (September 2011b) [166 citations]

→ Established a precise benchmark stacked full-lensing mass profile for massive galaxy clusters from pre-CLASH data, combining weak and strong lensing, and showing agreement with the cuspy NFW form expected in Λ CDM.

18. Keiichi Umetsu*, Tom Broadhurst, Adi Zitrin, Elinor Medezinski, & Li-Yen Hsu, “Cluster Mass Profiles from a Bayesian Analysis of Weak Lensing Distortion and Magnification Measurements: Applications to Subaru Data”, **The Astrophysical Journal**, 729(2), 127 (March 2011a) [191 citations]

→ Developed a Bayesian shear-and-magnification framework that breaks the mass-sheet degeneracy and reconstructs binned cluster mass profiles beyond the virial radius.

19. Keiichi Umetsu*, Elinor Medezinski, Tom Broadhurst, Adi Zitrin, Nobuhiro Okabe, Bau-Ching Hsieh, & Sandor M. Molnar, “The Mass Structure of the Galaxy Cluster Cl0024+1654 from a Full Lensing Analysis of Subaru and ACS/NIC3 Observations”, **The Astrophysical Journal**, 714(2), 1470 (May 2010) [117 citations]

→ Resolved earlier strong- versus weak-lensing mass discrepancies in Cl 0024+1654 through improved background-galaxy selection and a joint full-lensing analysis.

20. Keiichi Umetsu*, Mark Birkinshaw, Guo-Chin Liu, Jiun-Huei Proty Wu, Elinor Medezinski, Tom Broadhurst, Doron Lemze, Adi Zitrin, Paul T. P. Ho, Chih-Wei Locutus Huang, Patrick M. Koch, Yu-Wei Liao, Kai-Yang Lin, Sandor M. Molnar, Hiroaki Nishioka, Fu-Cheng Wang, Pablo Altamirano, Chia-Hao Chang, Shu-Hao Chang, Su-Wei Chang, Ming-Tang Chen, Chih-Chiang Han, Yau-De Huang, Yuh-Jing Hwang, Homin Jiang, Michael Kesteven, Derek Y. Kubo, Chao-Te Li, Pierre Martin-Cocher, Peter Oshiro, Philippe Raffin, Tashun Wei, & Warwick Wilson, “Mass and Hot Baryons in Massive Galaxy Clusters from Subaru Weak Lensing and AMiBA Sunyaev–Zel’dovich Effect Observations”, **The Astrophysical Journal**, 694(2), 1643 (April 2009) [140 citations]

→ Led the weak-lensing analysis for the Taiwan-led AMiBA project, combining Subaru lensing and Sunyaev–Zel’dovich measurements to constrain cluster masses and hot-gas fractions directly.

21. Keiichi Umetsu* & Tom Broadhurst, “Combining Lens Distortion and Depletion to Map the Mass Distribution of A1689”, **The Astrophysical Journal**, 684(1), 177 (September 2008) [192 citations]

→ Demonstrated and corrected the radial dilution caused by cluster-member contamination in Abell 1689, reconciling weak- and strong-lensing mass profiles through joint shear and magnification measurements.

22. Yuki Okura, Keiichi Umetsu*, & Toshifumi Futamase, “A Method for Weak-Lensing Flexion Analysis by the HOLICs Moment Approach”, **The Astrophysical Journal**, 680(1), 1 (June 2008) [78 citations]

→ Developed the HOLICs flexion estimator as a higher-order extension of the Kaiser–Squires–Broadhurst moment method and applied it to Abell 1689, obtaining a clear flexion detection.

23. Yuki Okura, Keiichi Umetsu*, & Toshifumi Futamase, “A New Measure for Weak-Lensing Flexion”, **The Astrophysical Journal**, 660(2), 995 (May 2007) [93 citations]

→ Introduced the HOLICs moment formalism for weak-lensing flexion, relating higher-order galaxy-image moments to first- and second-flexion estimators.

Complete List of Publications: Keiichi Umetsu

- Publications in each category are listed in reverse-chronological order. Papers currently submitted to refereed journals are marked in blue.
 - My name is underlined. An asterisk (*) indicates the corresponding author. Double underlining indicates students or postdoctoral researchers whom I directly supervised or mentored in the work reported in the publication.
 - See my NASA/ADS library: <https://ui.adsabs.harvard.edu/public-libraries/YfVHJhW3T6K0z00QW7fI3w>
 - See my Google Scholar profile: <https://scholar.google.com/citations?user=JHAdrV0AAAAJ>
 - See my ORCID profile: <https://orcid.org/0000-0002-7196-4822>
-

(A) Refereed Journal Publications and Submitted Manuscripts

1. Jiashuo Zhang, Tom Broadhurst, Tzihong Chiueh, Keiichi Umetsu, Hsi-Yu Schive, Chian-Chou Chen, Jeremy Lim, Jose M. Diego, Paloma Morilla, Pablo G. Perez-Gonzalez, & Rogier Windhorst, “*JWST Evidence for a Sharp Cosmic Daybreak at $z = 15$* ”, submitted to **Nature Astronomy** (arXiv:2609.28257)
2. Jiashuo Zhang, Tom Broadhurst, Alvaro Pozo, Tzihong Chiueh, Hsi-Yu Schive, Bo-Ren You, Jeremy Lim, Francine Marleau, Tomomi Sunayama, Keiichi Umetsu, Mariam Bouhmadi-Lopez, & Masamune Oguri, “*Generating the Wide Sequence of Diffuse Galaxies with de Broglie Waves of Dark Matter*”, submitted to **Nature** (arXiv:2609.11510)
3. Keiichi Umetsu*, “*Why Azimuthal Averaging Works in Halo Lensing: Symmetry and Power Counting for Non-linear Shear and Magnification*”, submitted to **ApJ** (arXiv:2609.08825)
4. Anthony Englert, Shenming Fu, Ian Dell’Antonio, Mohamed Abdullah, Shrouk Abdulshafy, Eddie Aljamal, William Black, Nicole Chidester, Douglas Clowe, M. Cooper, Megan Donahue, Zacharias Escalante, August (Gus) Evrard, Eric Habjan, Soren Helhoski, Ruoning Lan, Binyang Liu, Jacqueline McCleary, Hironao Miyatake, Mireia Montes, Priyamvada Natarajan, Jessica Nelson, Michelle Ntampaka, Elena Pierpaoli, Marc Postman, Rahul Shinde, Jubee Sohn, Fuyuko Tanaka, David Turner, Keiichi Umetsu, Yousuke Utsumi, Ray Wang, & Gillian Wilson, submitted to **ApJS** (arXiv:2607.16417)
“*LoVoCCS. III. Third Generation Pipeline & The Hercules Supercluster*”
5. Keiichi Umetsu*, Raphael Gavazzi, Mauro Sereno, Nobuhiro Okabe, Emmanuel Bertin, Gianluca Castignani, Stefano Ettori, Fabio Gastaldello, Carlo Giocoli, Scott T. Kay, Junhan Kim, Maggie Lieu, Lorenzo Lovisari, Ben J. Maughan, Mario Nonino, Lorenzo Pizzuti, Etienne Pointecouteau, Gabriel W. Pratt, Mario Radovich, Elena Rasia, Mariachiara Rossetti, Harshda Saxena, & Jack Sayers, submitted to **A&A** (arXiv:2606.24142)
“*CHEX-MATE: AMALGAM Weak-lensing Analysis of 41 Planck Sunyaev–Zel’dovich-selected Galaxy Clusters*”
6. R. Gavazzi*, K. Umetsu, E. Bertin, A. Donnarumma, M. Sereno, N. Okabe, & L. Ingoglia, submitted to **A&A**
“*AMALGAM: A Large Sample of Galaxy Clusters for Weak Lensing from Pixels in Multi-band Images to Galaxy Photometry and Shape*”
7. Sut-leng Tam*, Keiichi Umetsu, Adam Amara, Dominique Eckert, Manon Regamey, Nicolas Cerardi, I-Non Chiu, Mauro Sereno, Florian Pacaud, Sunayana Bhargava, Christian Garrel, Fabio Gastaldello, Elias Koulouridis, Ben Maughan, Rogério Monteiro-Oliveira, & Marguerite Pierre, submitted to **ApJ** (arXiv:2602.11989)
“*Simulation-Based Cosmological Mass Calibration of XXL Galaxy Clusters using HSC Weak Lensing*”
8. I-Hsuan Li, Shutaro Ueda, I-Non Chiu, & Keiichi Umetsu, submitted to **ApJ** (arXiv:2601.14392)
“*An Azimuthally Resolved Study of Sloshing Cold Fronts in Three Nearby Galaxy Clusters*”
9. I-Non Chiu, Kai-Feng Chen, Masamune Oguri, Satoshi Miyazaki, Surhud More, Atsushi J. Nishizawa, Nobuhiro Okabe, Ken Osato, Naomi Ota, Tomomi Sunayama, Sut-leng Tam, & Keiichi Umetsu, **The Open Journal of Astrophysics** in press (arXiv:2608.02755)
“*Weak-lensing Shear-Selected Galaxy Clusters from the Hyper Suprime-Cam Subaru Strategic Program: III. A Precision Cosmological Sample Enabled by Optical Confirmation*”
10. Adriana Gavidia, Junhan Kim, Jack Sayers, Mauro Sereno, Loris Chappuis, Dominique Eckert, Keiichi Umetsu, Herve Bourdin, Federico De Luca, Stefano Ettori, Massimo Gaspari, Raphael Gavazzi, Scott Kay, Lorenzo Lovisari, Pasquale Mazzotta, Gabriel Pratt, Elena Rasia, & Mariachiara Rossetti, **A&A**, 710, A40 (June 2026)
“*CHEX-MATE: Cluster Multi-Probes in Three Dimensions (CLUMP-3D) II. Combined Gas and Dark Matter Analysis from X-ray, SZE, and WL*”

11. Lorenzo Pizzuti, Federico Rivano, [Keiichi Umetsu](#), & Andrea Biviano, **Universe**, 12, 124 (April 2026)
"CLASH-VLT: the Fifth Force in Chameleon Gravity from Joint Lensing and Kinematics Cluster Mass Profiles"
12. M. Regamey, D. Eckert, R. Seppi, W. Hartley, [K. Umetsu](#), S. Tam, & D. Gerolymatou, **A&A**, 708, A260 (April 2026)
"Galaxy Cluster Count Cosmology with Simulation-based Inference"
13. L. Pizzuti, A. Biviano, [K. Umetsu](#), E. Agostoni, A. Autorino, A. M. Pombo, A. Mercurio, & M. D'Addona, **JCAP**, 03, 022 (March 2026)
"CLASH-VLT: Constraining Deviation from GR with the Mass Profiles of Nine Massive Galaxy Clusters"
14. I-Non Chiu, Vittorio Ghirardini, Sebastian Grandis, Nobuhiro Okabe, Esra Bulbul, Y. Emre Bahar, Fabian Balzer, Nicolas Clerc, Johan Comparat, Florian Kleinebreil, Matthias Kluge, Ang Liu, Rogerio Monteiro-Oliveira, Masamune Oguri, Florian Pacaud, Miriam Ramos Ceja, H. Thomas Reiprich, Jeremy Sanders, Tim Schrabback, Riccardo Seppi, Martin Sommer, Sut-leng Tam, [Keiichi Umetsu](#), & Xiaoyuan Zhang, **A&A**, 704, A110 (December 2025)
"The SRG/eROSITA All-Sky Survey. The Weak-Lensing Mass Calibration and the Stellar Mass-to-Halo Mass Relation from the Hyper Suprime-Cam Subaru Strategic Program"
15. A. Pozo, T. Broadhurst, H. N. Luu, G. Smoot, [K. Umetsu](#), T. Chiueh, H.-Y. Schive, R. Emami, L. Hernquist, P. Mocz, & M. Vogelsberger, **A&A**, 704, A34 (December 2025)
"Infalling Ultra Faint Dwarfs as Emissaries of the Axiverse?"
16. J. P. Breuer, N. Werner, F. Mernier, [K. Umetsu](#), A. Simionescu, M. Devlin, L. Di Mascolo, T. Dibblee-Barkman, S. Dicker, B. S. Mason, T. Mroczkowski, C. Romero, C. L. Sarazin, & J. Sievers, **A&A**, 703, A231 (November 2025)
"The Thermodynamic Structure and Large-scale Structure Filament in MACS J0717.5+3745"
17. [Shouvik Roy Choudhury*](#), Teppei Okumura, & Keiichi Umetsu, **ApJ Letters**, 994 L26 (November 2025)
"Cosmological Constraints on Non-phantom Dynamical Dark Energy with DESI Data Release 2 Baryon Acoustic Oscillations: A 3σ Lensing Anomaly"
18. [Keiichi Umetsu*](#), [Michele Pizzardo](#), Antonaldo Diaferio, & Margaret J. Geller, **ApJ**, 990, 70 (September 2025)
"Cluster Lensing Mass Inversion (CLUMI+): Combining Dynamics and Weak Lensing around Galaxy Clusters"
19. Nobuhiro Okabe, Thomas Reiprich, Sebastian Grandis, I-Non Chiu, Masamune Oguri, [Keiichi Umetsu](#), Esra Bulbul, Emre Bahar, Fabian Balzer, Nicolas Clerc, Johan Comparat, Vittorio Ghirardini, Florian Kleinebreil, Matthias Kluge, Ang Liu, Yen-Ting Lin, Rogério Monteiro-Oliveira, Florian Pacaud, Miriam Ramos Ceja, Jeremy Sanders, Tim Schrabback, Riccardo Seppi, Martin Sommer, & Xiaoyuan Zhang, **A&A**, 700, A46 (August 2025)
"The SRG/eROSITA All-Sky Survey : Subaru/HSC-SSP weak-lensing mass measurements for the eRASS1 Galaxy Clusters"
20. [Chayan Mondal*](#), Kanak Saha, Anshuman Borgohain, Brent M. Smith, Rogier A. Windhorst, Naveen Reddy, Chian-Chou Chen, [Keiichi Umetsu](#), & Rolf A. Jansen, **ApJ** 988, 171 (August 2025)
"GNHell J1236+6215: A He II λ 1640 Emitting and Potentially LyC Leaking Galaxy at $z = 2.9803$ Unveiled Through JWST & Keck Observations"
21. L. Chappuis, D. Eckert, M. Sereno, A. Gavidia, J. Sayers, J. Kim, M. Rossetti, [K. Umetsu](#), H. Saxena, I. Bartalucci, R. Gavazzi, A. Rowlands Doblas, E. Pointecouteau, S. Ettori, G. W. Pratt, H. Bourdin, R. Cassano, F. De Luca, M. Donahue, M. Gaspari, F. Gastaldello, V. Ghirardini, M. Gitti, B. Maughan, P. Mazzotta, F. Oppizzi, E. Rasia, & M. Radovich, **A&A**, 699, A141 (July 2025)
"CHEX-MATE: Multi-probe analysis of Abell 1689"
22. C. Stuardi, A. Botteon, M. Sereno, [K. Umetsu](#), R. Gavazzi, A. Bonafede, & C. Gheller, **A&A**, 695, L16 (March 2025)
"Radio Emission from a Massive Node of the Cosmic Web. A Discovery Powered by Machine Learning"
23. G. Riva, G. W. Pratt, M. Rossetti, I. Bartalucci, S. T. Kay, E. Rasia, R. Gavazzi, [K. Umetsu](#), M. Balboni, A. Bonafede, H. Bourdin, S. De Grandi, F. De Luca, D. Eckert, S. Ettori, M. Gaspari, F. Gastaldello, V. Ghirardini, S. Ghizzardi, M. Gitti, L. Lovisari, B. J. Maughan, P. Mazzotta, S. Molendi, E. Pointecouteau, J. Sayers, M. Sereno, & I. Towler, **A&A**, 691, A340 (November 2024)
"CHEX-MATE: the Intracluster Medium Entropy Distribution in the Gravity-dominated Regime"
24. Shenming Fu, Ian Dell'Antonio, Zacharias Escalante, Jessica Nelson, Anthony Englert, Søren Helhoski, Rahul Shinde, Julia Brockland, Philip LaDuca, Christelyn Larkin, Lucca Paris, Shane Weiner, William K. Black, Ranga-Ram Chary, Douglas Clowe, M. C. Cooper, Megan Donahue, August Evrard, Mark Lacy, Tod Lauer, Binyang Liu, Jacqueline McCleary, Massimo Meneghetti, Hironao Miyatake, Mireia Montes, Priyamvada

Natarajan, Michelle Ntampaka, Elena Pierpaoli, Marc Postman, Jubee Sohn, David Turner, Keiichi Umetsu, Yousuke Utsumi, & Gillian Wilson, **ApJ**, 974, 69 (October 2024)

"LoVoCCS – II. Weak Lensing Mass Distributions, Red-Sequence Galaxy Distributions, and Their Alignment with the Brightest Cluster Galaxy in 58 Nearby X-ray-Luminous Galaxy Clusters"

25. Seiji Fujimoto, Kotaro Kohno, Masami Ouchi, Masamune Oguri, Vasily Kokorev, Gabriel Brammer, Fengwu Sun, Jorge Gonzalez-Lopez, Franz E. Bauer, Gabriel B. Caminha, Bunyo Hatsukade, Johan Richard, Ian Smail, Akiyoshi Tsujita, Yoshihiro Ueda, Ryosuke Uematsu, Adi Zitrin, Dan Coe, Jean-Paul Kneib, Marc Postman, Keiichi Umetsu, Claudia del P. Lagos, Gergo Popping, Yiping Ao, Larry Bradley, Karina Caputi, Miroslava Dessauges-Zavadsky, Eiichi Egami, Daniel Espada, R. J. Ivison, Mathilde Jauzac, Kirsten K. Knudsen, Anton M. Koekemoer, Georgios E. Magdis, Guillaume Mahler, A. M. Munoz Arancibia, Timothy Rawle, Kazuhiro Shimasaku, Sune Toft, Hideki Umehata, Francesco Valentino, Tao Wang, & Wei-Hao Wang, **ApJS**, 275, 36 (December 2024)
"ALMA Lensing Cluster Survey: Deep 1.2 mm Number Counts and Infrared Luminosity Functions at $z \simeq 1-8$ "
26. Junhan Kim, Jack Sayers, Mauro Sereno, Iacopo Bartalucci, Loris Chappuis, Sabrina De Grandi, Federico De Luca, Marco De Petris, Megan E. Donahue, Dominique Eckert, Stefano Ettori, Massimo Gaspari, Fabio Gastaldello, Raphael Gavazzi, Adriana Gavidia, Simona Ghizzardi, Asif Iqbal, Scott Kay, Lorenzo Lovisari, Ben J. Maughan, Pasquale Mazzotta, Nobuhiro Okabe, Etienne Pointecouteau, Gabriel W. Pratt, Mariachiara Rossetti, & Keiichi Umetsu, **A&A**, 686, A97 (June 2024)
"CHEX-MATE: CLUster Multi-Probes in Three Dimensions (CLUMP-3D), I. Gas Analysis Method using X-ray and Sunyaev-Zel'dovich Effect Data"
27. Jose M. Diego, Sung Kei Li, Ashish K. Meena, Anna Niemiec, Ana Acebron, Mathilde Jauzac, Mitchell F. Struble, Alfred Amruth, Tom J. Broadhurst, Catherine Cerny, Harald Ebeling, Alexei V. Filippenko, Eric Jullo, Patrick Kelly, Anton M. Koekemoer, David Lagatutta, Jeremy Lim, Marceau Limousin, Guillaume Mahler, Nancy Patel, Juan Remolina, Johan Richard, Keren Sharon, Charles Steinhardt, Keiichi Umetsu, Liliya Williams, Adi Zitrin, J.M. Palencia, Liang Dai, Lingyuan Ji, & Massimo Pascale, **A&A**, 681, A124 (January 2024)
"BUFFALO/Flashlights: Constraints on the Abundance of Lensed Supergiant Stars in the Spock Galaxy at Redshift 1"
28. Hung-Yu Jian, Lihwai Lin, Bau-Ching Hsieh, Keiichi Umetsu, Carlos Lopez-Coba, Masamune Oguri, Connor Bottrell, Yoshiki Toba, Yusei Koyama, Yu-Yen Chang, Tadayuki Kodama, Yutaka Komiyama, Surhud More, Kai-Yang Lin, Atsushi J. Nishizawa, & Ichi Tanaka, **ApJ**, 957, 85 (November 2023)
"Radial and Local Density Dependence of Star Formation Properties in Galaxy Clusters from the Hyper Suprime-Cam Survey"
29. Anna Niemiec, Mathilde Jauzac, Dominique Eckert, David Lagatutta, Keren Sharon, Anton M. Koekemoer, Keiichi Umetsu, Ana Acebron, Jose M. Diego, David Harvey, Eric Jullo, Vasily Kokorev, Marceau Limousin, Guillaume Mahler, Priyamvada Natarajan, Mario Nonino, Juan D. Remolina, Charles Steinhardt, Sut-leng Tam, & Adi Zitrin, **MNRAS**, 524, 2883 (September 2023)
"Beyond the Ultra-deep Frontier Fields And Legacy Observations (BUFFALO): a High-resolution Strong + Weak-lensing View of Abell 370"
30. Sut-leng Tam*, Keiichi Umetsu, Andrew Robertson, & Ian G. McCarthy, **ApJ**, 953, 169 (August 2023)
"Testing the Collisionless Nature of Dark Matter with the Radial Acceleration Relation in Galaxy Clusters"
31. I. Ferreras, A. Böhm, K. Umetsu, V. Sampaio, & R. R. de Carvalho, **MNRAS**, 519, 4884 (January 2023)
"Exploring the Stellar Populations of Backsplash Galaxies"
32. Keiichi Umetsu*, Shutaro Ueda, Bau-Ching Hsieh, Mario Nonino, I-Non Chiu, Masamune Oguri, Sandor M. Molnar, Anton M. Koekemoer, & Sut-leng Tam, **ApJ**, 934, 169 (August 2022)
"Line-of-sight Elongation and Hydrostatic Mass Bias of the Frontier Fields Galaxy Cluster Abell 370"
33. Filippo Bouchè, Salvatore Capozziello, Vincenzo Salzano, & Keiichi Umetsu, **The European Physical Journal C**, 82, 652 (July 2022)
"Testing Non-local Gravity by Clusters of Galaxies"
34. Shenming Fu, Ian Dell'Antonio, Ranga-Ram Chary, Douglas Clowe, M. C. Cooper, Megan Donahue, August Evrard, Mark Lacy, Tod Lauer, Binyang Liu, Jacqueline McCleary, Massimo Meneghetti, Hironao Miyatake, Mireia Montes, Priyamvada Natarajan, Michelle Ntampaka, Elena Pierpaoli, Marc Postman, Jubee Sohn, Keiichi Umetsu, Yousuke Utsumi, & Gillian Wilson, **ApJ**, 933, 84 (July 2022)
"LoVoCCS. I. Survey Introduction, Data Processing Pipeline, and Early Science Results"
35. Christian Garrel, Marguerite Pierre, Patrick Valageas, Dominique Eckert, Federico Marulli, Alfonso Veropalumbo, Florian Pacaud, Nicolas Clerc, Mauro Sereno, Keiichi Umetsu, Lauro Moscardini, Sunayana Bhargava, Christophe Adami, Lucio Chiappetti, Fabio Gastaldello, Elias Koulouridis, Jean-Paul Le Fevre, & Manolis Plionis, **A&A**,

663, A3 (July 2022)

"The XXL Survey XLVI. Forward Cosmological Analysis of the C1 Cluster Sample"

36. Wei-Hao Wang, Sebastien Foucaud, [Bau-Ching Hsieh](#), Hung-Yu Jian, Lihwai Lin, Yen-Ting Lin, Jean Coupon, Yasuhiro Hashimoto, Masami Ouchi, Kazuhiro Shimasaku, Youichi Ohyama, [Keiichi Umetsu](#), Shiang-Yu Wang, & Tzu-Ching Chang, **ApJS**, 260, 54 (June 2022)
"MUSUBI (MegaCam Ultra-deep Survey: U^ -Band Imaging)–Data for the COSMOS and SXDS Fields"*
37. [I-Non Chiu*](#), Vittorio Ghirardini, Ang Liu, Sebastian Grandis, Esra Bulbul, Y. Emre Bahar, Johan Comparat, Sebastian Bocquet, Nicolas Clerc, Matthias Klein, Teng Liu, Xiangchong Li, Hironao Miyatake, Joseph Mohr, Masamune Oguri, Nobuhiro Okabe, Florian Pacaud, Miriam E. Ramos-Ceja, Thomas H. Reiprich, Tim Schrabbach, & [Keiichi Umetsu](#), **A&A**, 661, A11 (May 2022)
"The eROSITA Final Equatorial-Depth Survey (eFEDS) X-ray Observable-to-Mass-and-Redshift Relations of Galaxy Clusters and Groups with Weak-lensing Mass Calibration from the Hyper Suprime-Cam Subaru Strategic Program survey"
38. Lorenzo Pizzuti, Ippocratis D. Saltas, [Keiichi Umetsu](#), & Barbara Sartoris, **MNRAS**, 512, 4280 (May 2022)
"Probing Vainsthein-screening Gravity with Galaxy Clusters using Internal Kinematics and Strong and Weak Lensing"
39. [Luis A. Diaz-Garcia*](#), [Keiichi Umetsu](#), Elena Rasia, Weiguang Cui, & Massimo Meneghetti, **MNRAS**, 512, 1214 (May 2022)
"The Three Hundred Project: Dissecting the Fundamental Plane of Galaxy Clusters up to $z = 1$ "
40. Yasuhiro Hashimoto, Hans Boehringer, & [Keiichi Umetsu](#), **MNRAS**, 511, 2796 (April 2022)
"Dwarf Galaxy Luminosity Function and Cluster Environments"
41. Enrico Laudato, Vincenzo Salzano, & [Keiichi Umetsu](#), **MNRAS**, 511, 1878 (April 2022)
"Multicomponent DHOST Analysis in Galaxy Clusters"
42. Hung-Yu Jian, Lihwai Lin, [Bau-Ching Hsieh](#), Kai-Yang Lin, [Keiichi Umetsu](#), Carlos Lopez-Coba, Yusei Koyama, Chin-Hao Hsu, Yung-Chau Su, Yu-Yen Chang, Tadayuki Kodama, Yutaka Komiyama, Surhud More, Atsushi J. Nishizawa, Masamune Oguri, & Ichi Tanaka, **ApJ**, 926, 115 (February 2022)
"Star Formation Properties of Sloan Digital Sky Survey BOSS Void Galaxies in the Hyper Suprime-Cam Survey"
43. Daichi Akino, Dominique Eckert, Nobuhiro Okabe, Mauro Sereno, [Keiichi Umetsu](#), Masamune Oguri, Fabio Gastaldello, [I-Non Chiu](#), Stefano Ettori, August E. Evrard, Arya Farahi, Ben Maughan, Marguerite Pierre, Marina Ricci, Ivan Valtchanov, Ian McCarthy, Sean McGee, Satoshi Miyazaki, Atsushi J. Nishizawa, & Masayuki Tanaka, **PASJ**, 74, 175 (February 2022)
"HSC-XXL: Baryon Budget of the 136 XXL Groups and Clusters"
44. [Sut-leng Tam](#), [Keiichi Umetsu*](#), & Adam Amara, **ApJ**, 925, 145 (February 2022)
"Likelihood-free Forward Modeling for Cluster Weak Lensing and Cosmology"
45. A. Mercurio, P. Rosati, A. Biviano, M. Annunziatella, M. Girardi, B. Sartoris, M. Nonino, M. Brescia, G. Riccio, C. Grillo, I. Balestra, G. B. Caminha, G. De Lucia, R. Gobat, S. Seitz, P. Tozzi, M. Scodeggio, E. Vanzella, G. Angora, P. Bergamini, S. Borgani, R. Demarco, M. Meneghetti, V. Strazzullo, L. Tortorelli, [K. Umetsu](#), A. Fritz, D. Gruen, D. Kelson, M. Lombardi, C. Maier, M. Postman, G. Rodighiero, & B. Ziegler, **A&A**, 656, A147 (December 2021)
"CLASH-VLT: Abell S1063 Cluster Assembly History and Spectroscopic Catalogue"
46. [Shutaro Ueda*](#), [Keiichi Umetsu](#), Fanlam Ng, Yuto Ichinohe, Tetsu Kitayama, & [Sandor M. Molnar](#), **ApJ**, 922, 81 (November 2021)
"Systematic Perturbations of the Thermodynamic Properties in Cool Cores of HIFLUGCS Galaxy Clusters"
47. Adam Amara, Lucia F. de la Bella, Simon Birrer, Sarah Bridle, Juan Pablo Cordero, Ginevra Favole, Ian Harrison, Ian W. Harry, William G. Hartley, Coleman Krawczyk, Andrew Lundgren, Brian Nord, Laura K. Nuttall, Richard P. Rollins, Philipp Sudek, [Sut-leng Tam](#), Nicolas Tessore, Arthur E. Tolley, [Keiichi Umetsu](#), Andrew R. Williamson, & Laura Wolz, **The Journal of Open Source Software**, 65, 3056 (September 2021)
"SkyPy: A Package for Modelling the Universe"
48. S. Bonoli, A. Marín-Franch, J. Varela, H. Vázquez Ramio, L. R. Abramo, A. J. Cenarro, R. A. Dupke, J. M. Vilchez, D. Cristobal-Hornillos, R. M. Gonzalez Delgado, C. Hernandez-Monteagudo, C. Lopez-Sanjuan, D. J. Muniesa, T. Civera, A. Ederoclite, A. Hernan-Caballero, V. Marra, P.O. Baqui, A. Cortesi, E.S. Cypriano, S. Daflon, A. L. de Amorim, [L. A. Diaz-García](#), J. M. Diego, G. Martínez-Solaesche, E. Perez, V. M. Placco, F. Prada, C. Queiroz, J. Alcaniz, A. Alvarez-Candal, J. Cepa, A. L. Maroto, F. Roig, B. B. Siffert, K. Taylor, N. Benitez, M. Moles, L. Sodre Jr., S. Carneiro, C. Mendes de Oliveira, E. Abdalla, R. E. Angulo, M. Aparicio

Resco, A. Balaguera-Antolinez, F. J. Ballesteros, D. Brito-Silva, T. Broadhurst, E. R. Carrasco, T. Castro, R. Cid Fernandes, P. Coelho, R. B. de Melo, L. Doubrawa, A. Fernandez-Soto, F. Ferrari, A. Finoguenov, R. García-Benito, J. Iglesias-Paramo, Y. Jimenez-Teja, F. S. Kitaura, J. Laur, P. A. A. Lopes, G. Lucatelli, V. J. Martinez, M. Maturi, M. Quartin, C. Pigozzo, J. E. Rodriguez-Martin, V. Salzano, A. Tamm, E. Tempel, K. Umetsu, L. Valdivielso, R. von Marttens, A. Zitrin, M. C. Díaz-Martín, G. Lopez-Alegre, A. Lopez-Sainz, A. Yanes-Diaz, F. Rueda-Teruel, S. Rueda-Teruel, J. Abril Ibañez, J. L. Anton Bravo, R. Bello Ferrer, S. Bielsa, J. M. Casino, J. Castillo, S. Chueca, L. Cuesta, J. Garzarán Calderaro, R. Iglesias-Marzoa, C. Íñiguez, J. L. Lamadrid Gutierrez, F. Lopez-Martinez, D. Lozano-Perez, N. Maicas Sacristán, E. L. Molina-Ibanez, A. Moreno-Signes, S. Rodríguez Llano, M. Royo Navarro, V. Tilve Rua, U. Andrade, E. J. Alfaro, S. Akas, P. Arnalte-Mur, B. Ascaso, C. E. Barbosa, J. Beltrán Jimenez, M. Benetti, C. A. P. Bengaly, A. Bernui, J. J. Blanco-Pillado, M. Borges Fernandes, J. N. Bregman, G. Bruzual, G. Calderone, J. M. Carvano, L. Casarini, A. L. Chies-Santos, G. Coutinho de Carvalho, P. Dimauro, S. Duarte Puertas, D. Figueruelo, J. I. Gonzalez-Serrano, M. A. Guerrero, S. Gurung-Lopez, D. Herranz, M. Huertas-Company, J. A. Irwin, D. Izquierdo-Villalba, A. Kanaan, C. Kehrig, C. C. Kirkpatrick, J. Lim, A. R. Lopes, R. Lopes de Oliveira, A. Marcos-Caballero, D. Martinez-Delgado, E. Martinez-Gonzalez, G. Martinez-Somonte, N. Oliveira, A. A. Orsi, R. A. Overzier, M. Penna-Lima, R. R. R. Reis, D. Spinoso, S. Tsujikawa, P. Vielva, A. Z. Vitorelli, J. Q. Xia, H. B. Yuan, A. Arroyo-Polonio, M. L. L. Dantas, C. A. Galarza, D. R. Gonçalves, R. S. Gonçalves, J. E. Gonzalez, A. H. Gonzalez, N. Greisel, R. G. Landim, D. Lazzaro, G. Magris, R. Monteiro-Oliveira, C. B. Pereira, M. J. Reboucas, J. M. Rodriguez-Espinosa, S. Santos da Costa, & E. Telles, **A&A**, 653, 31 (September 2021)

"The miniJPAS Survey: a Preview of the Universe in 56 Colours"

49. Jack Sayers, Mauro Sereno, Stefano Ettori, Elena Rasia, Weiguang Cui, Sunil Golwala, Keiichi Umetsu, & Gustavo Yepes, **MNRAS**, 505, 4338 (August 2021)

"CLUMP-3D: the Lack of Non-Thermal Motions in Galaxy Cluster Cores"

50. CHEX-MATE Collaboration: M. Arnaud, S. Ettori, G. W. Pratt, M. Rossetti, D. Eckert, F. Gastaldello, R. Gavazzi, S. T. Kay, L. Lovisari, B. J. Maughan, E. Pointecouteau, M. Sereno, I. Bartalucci, A. Bonafede, H. Bourdin, R. Cassano, R. T. Duffy, A. Iqbal, S. Maurogordato, E. Rasia, J. Sayers, F. Andrade-Santos, H. Aussel, D. J. Barnes, R. Barrena, S. Borgani, S. Burkutean, N. Clerc, P.-S. Corasaniti, J.-C. Cuillandre, S. De Grandi, M. De Petris, K. Dolag, M. Donahue, A. Ferragamo, M. Gaspari, S. Ghizzardi, M. Gitti, C. P. Haines, M. Jauzac, M. Johnston-Hollitt, C. Jones, F. Kérusoré, A. M. C. Le Brun, F. Mayet, P. Mazzotta, J.-B. Melin, S. Molendi, M. Nonino, N. Okabe, S. Paltani, L. Perotto, S. Pires, M. Radovich, J.-A. Rubino-Martin, L. Salvati, A. Saro, B. Sartoris, G. Schellenberger, A. Streblyanska, P. Tarrio, P. Tozzi, K. Umetsu, R. F. J. van der Burg, F. Vazza, T. Venturi, G. Yepes, & S. Zarattini, **A&A**, 650, A104 (June 2021)

"The Cluster HERitage project with XMM-Newton: Mass Assembly and Thermodynamics at the Endpoint of structure formation. I. Programme overview"

51. J. P. Willis, M. Oguri, M. E. Ramos-Ceja, F. Gastaldello, M. Sereno, C. Adami, S. Alis, B. Altieri, L. Chiappetti, P. S. Corasaniti, D. Eckert, S. Ettori, C. Garrel, P. Giles, J. Lefevre, L. Faccioli, S. Fotopoulou, A. Hamabata, E. Koulouridis, M. Lieu, Y.-T. Lin, B. Maughan, A. J. Nishizawa, T. Okabe, N. Okabe, F. Pacaud, S. Paltani, M. Pierre, M. Plionis, B. Poggianti, E. Pompei, T. Sadibekova, K. Umetsu, & P. Valageas, **MNRAS**, 503, 5624 (June 2021)

"Understanding X-ray and Optical Selection of Galaxy Clusters: A Comparison of the XXL and CAMIRA Cluster Catalogues Obtained in the Common XXL-HSC SSP Area"

52. Victoria Strait, Marusa Bradac, Dan Coe, Brian C. Lemaux, Adam Carnall, Larry Bradley, Debora Pelliccia, Keren Sharon, Adi Zitrin, Ana Acebron, Felipe Andrade-Santos, Roberto J. Avila, Brenda L. Frye, Guillaume Mahler, Mario Nonino, Sara Ogaz, Masamune Oguri, Masami Ouchi, Rachel Paterno-Mahler, Daniel P. Stark, Ramesh Mainali, Pascal A. Oesch, Michele Trenti, Daniela Carrasco, William A. Dawson, Christine Jones, Keiichi Umetsu, & Benedetta Vulcani, **ApJ**, 910, 135 (April 2021)

"RELICS: Properties of $z \geq 5.5$ Galaxies Inferred from Spitzer and Hubble Imaging, Including A Candidate $z \sim 6.8$ Strong [O III] Emitter"

53. Nobuhiro Okabe, Simon Dicker, Dominique Eckert, Tony Mroczkowski, Fabio Gastaldello, Yen-Ting Lin, Mark Devlin, Charles E. Romero, Mark Birkinshaw, Craig Sarazin, Cathy Horellou, Tetsu Kitayama, Keiichi Umetsu, Mauro Sereno, Brian S. Mason, John A. ZuHone, Ayaka Honda, Hiroki Akamatsu, I-Non Chiu, Kotaro Kohno, Kai-Yang Lin, Elinor Medezinski, Satoshi Miyazaki, Ikuyuki Mitsuishi, Atsushi J. Nishizawa, Masamune Oguri, Naomi Ota, Florian Pacaud, Marguerite Pierre, Jonathan Sievers, Vernesa Smolcic, Sara Stanchfield, Keigo Tanaka, Ryoichi Yamamoto, Chong Yang, & Atsushi Yoshida, **MNRAS**, 501, 1701 (February 2021)

"Active Gas Features in Three HSC-SSP CAMIRA Clusters Revealed by High Angular Resolution Analysis of MUSTANG-2 SZE and XXL X-ray Observations"

54. Keiichi Umetsu*, **The Astronomy and Astrophysics Review**, 28, 7 (December 2020)

"Cluster-Galaxy Weak Lensing"

55. M. Ricci, R. Adam, D. Eckert, P. Ade, P. Andre, A. Andrianasolo, B. Altieri, H. Aussel, A. Beelen, C. Benoist, A. Benoît, S. Berta, A. Bideaud, M. Birkinshaw, O. Bourrion, D. Boutigny, M. Bremer, M. Calvo, A. Cappi, L. Chiappetti, A. Catalano, M. De Petris, F.-X. Desert, S. Doyle, E. F. C. Driessen, L. Faccioli, C. Ferrari, S. Fotopoulou, F. Gastaldello, P. Giles, A. Gomez, J. Goupy, O. Hahn, C. Horellou, F. Kéruzore, E. Koulouridis, C. Kramer, B. Ladjelate, G. Lagache, S. Leclercq, J.-F. Lestrade, J. F. Macías-Pérez, A. Mantz, B. Maughan, S. Maurogordato, P. Mauskopf, A. Monfardini, F. Pacaud, L. Perotto, M. Pierre, G. Pisano, E. Pompei, N. Ponthieu, V. Revéret, A. Ritacco, C. Romero, H. Roussel, F. Ruppín, M. Sánchez Portal, K. Schuster, M. Sereno, S. Shu, A. Sievers, C. Tucker, & K. Umetsu, **A&A**, 642, A126 (October 2020)
"The XXL Survey XLIV. Sunyaev-Zel'dovich Mapping of a Low Mass Cluster at $z \sim 1$: a Multi-wavelength Approach"
56. A. Trudeau, C. Garrel, J. Willis, M. Pierre, F. Gastaldello, L. Chiappetti, S. Ettori, K. Umetsu, C. Adami, N. Adams, R. A. A. Bowler, L. Faccioli, B. Häußler, M. Jarvis, E. Koulouridis, J. P. Le Fevre, F. Pacaud, B. Poggianti, & T. Sadibekova, **A&A**, 642, A124 (October 2020)
"The XXL Survey XLII. Detection and Characterization of the Galaxy Population of Distant Galaxy Clusters in the XXL-N/VIDEO Field: A Tale of Variety"
57. I-Non Chiu*, Teppei Okumura, Masamune Oguri, Aniket Agrawal, Keiichi Umetsu, & Yen-Ting Lin, **MNRAS**, 498, 2030 (October 2020)
"A Clustering-based Self-calibration of the Richness-to-Mass Relation of CAMIRA Galaxy Clusters out to $z \approx 1.1$ in the Hyper Suprime-Cam Survey"
58. Sandor M. Molnar*, Shutaro Ueda, & Keiichi Umetsu, **ApJ**, 900, 151 (September 2020)
"The Dynamical State of the Frontier Fields Galaxy Cluster Abell 370"
59. Ana Acebron, Adi Zitrin, Dan Coe, Guillaume Mahler, Keren Sharon, Masamune Oguri, Maruša Bradac, Larry Bradley, Brenda Frye, Christine J. Forman, Victoria Strait, Yuanyuan Su, Keiichi Umetsu, Felipe Andrade-Santos, Roberto J. Avila, Daniela Carrasco, Catherine Cerny, Nicole G. Czikon, William A. Dawson, Carter Fox, Austin T. Hoag, Kuang-Han Huang, Traci L. Johnson, Shotaro Kikuchihara, Daniel Lam, Lorenzo Lovisari, Ramesh Mainali, Mario Nonino, Pascal A. Oesch, Sara Ogaz, Masami Ouchi, Matthew Past, Rachel Paterno-Mahler, Avery Peterson, Russell E. Ryan, Brett Salmon, Daniel P. Stark, Sune Toft, Michele Trenti, Benedetta Vulcani, & Brian Welch, **ApJ**, 898, 6 (July 2020)
"RELICS: A Very Large ($\theta_E \sim 40''$) Cluster Lens—RXC J0032.1+1808"
60. I-Non Chiu*, Keiichi Umetsu, Ryoma Murata, Elinor Medezinski, & Masamune Oguri, **MNRAS**, 495, 428 (June 2020)
"The Richness-to-Mass Relation of CAMIRA Galaxy Clusters from Weak-lensing Magnification in the Subaru Hyper Suprime-Cam Survey"
61. Yong Tian*, Keiichi Umetsu, Chung-Ming Ko, Megan Donahue, & I-Non Chiu, **ApJ**, 896, 70 (June 2020)
"The Radial Acceleration Relation in CLASH Galaxy Clusters"
62. Hung-Yu Jian, Lihwai Lin, Yusei Koyama, Ichi Tanaka, Keiichi Umetsu, Bau-Ching Hsieh, Yuichi Higuchi, Masamune Oguri, Surhud More, Yutaka Komiyama, Tadayuki Kodama, Atsushi J. Nishizawa, & Yu-Yen Chang, **ApJ**, 894, 125 (May 2020)
"Redshift Evolution of Green Valley Galaxies in Different Environments from the Hyper Suprime-Cam Survey"
63. B. Sartoris, A. Biviano, P. Rosati, A. Mercurio, C. Grillo, A. Ettori, M. Nonino, K. Umetsu, P. Bergamini, G. B. Caminha, & M. Girardi, **A&A**, 637, A34 (May 2020)
"CLASH-VLT: A Full Dynamical Reconstruction of the Mass Profile of Abell S1063 from 1 kpc out to the Virial Radius"
64. Charles L. Steinhardt, Mathilde Jauzac, Ana Acebron, Hakim Atek, Peter Capak, Iary Davidzon, Dominique Eckert, David Harvey, Anton M. Koekemoer, Claudia D. P. Lagos, Guillaume Mahler, Mireia Montes, Anna Niemiec, Mario Nonino, P. A. Oesch, Johan Richard, Steven A. Rodney, Matthieu Schaller, Keren Sharon, Louis-Gregory Strolger, Joseph Allingham, Adam Amara, Yannick Bahe, Celine Boem, Sownak Bose, Rychard J. Bouwens, Larry D. Bradley, Gabriel Brammer, Tom Broadhurst, Rodrigo Cañas, Renyue Cen, Benjamin Clément, Douglas Clowe, Dan Coe, Thomas Connor, Behnam Darvish, Jose M. Diego, Harald Ebeling, A. C. Edge, Eiichi Egami, Stefano Ettori, Andreas L. Faisst, Brenda Frye, Lukas J. Furtak, C. Gómez-Guijarro, J. D. Remolina Gonzalez, Anthony Gonzalez, Or Graur, Daniel Gruen, David Harvey, Hagan Hensley, Beryl Hovis-Afflerbach, Pascale Jablonka, Saurabh W. Jha, Eric Jullo, Jean-Paul Kneib, Vasily Kokorev, David J. Lagattuta, Marceau Limousin, Anja von der Linden, Nora B. Linzer, Adrian Lopez, Georgios E. Magdis, Richard Massey, Daniel C. Masters, Matteo Maturi, Curtis McCully, Sean L. McGee, Massimo Meneghetti, Bahram Mobasher, Leonidas A. Moustakas, Eric J. Murphy, Priyamvada Natarajan, Mark Neyrinck, Kyle O'Connor, Masamune Oguri, Amanda Pagul, Jason Rhodes, R. Michael Rich, Andrew Robertson, Mauro

Sereno, Huanyuan Shan, Graham P. Smith, Albert Sneppen, Gordon K. Squires, Sut-leng Tam, Céline Tchernin, Sune Toft, Keiichi Umetsu, John R. Weaver, R. J. van Weeren, Liliya L. R. Williams, Tom J. Wilson, Lin Yan, & Adi Zitrin, **ApJS**, 247, 64 (April 2020)
"The BUFFALO HST Survey"

65. Shutaro Ueda*, Yuto Ichinohe, Sandor M. Molnar, Keiichi Umetsu, & Tetsu Kitayama, **ApJ**, 892, 100 (April 2020)
"Gas Density Perturbations in Cool Cores of CLASH Galaxy Clusters"
66. Mauro Sereno, Keiichi Umetsu, Stefano Ettori, Dominique Eckert, Fabio Gastaldello, Paul Giles, Maggie Lieu, Ben Maughan, Nobuhiro Okabe, Mark Birkinshaw, I-Non Chiu, Yutaka Fujita, Satoshi Miyazaki, David Rapetti, Elias Koulouridis, & Marguerite Pierre, **MNRAS**, 492, 4528 (March 2020)
"XXL Survey Groups and Clusters in the Hyper Suprime-Cam Survey. Scaling Relations between X-ray Properties and Weak Lensing Mass"
67. Keiichi Umetsu*, Mauro Sereno, Maggie Lieu, Hironao Miyatake, Elinor Medezinski, Atsushi J. Nishizawa, Paul Giles, Fabio Gastaldello, Ian G. McCarthy, Martin Kilbinger, Mark Birkinshaw, Stefano Ettori, Nobuhiro Okabe, I-Non Chiu, Jean Coupon, Dominique Eckert, Yutaka Fujita, Yuichi Higuchi, Elias Koulouridis, Ben Maughan, Satoshi Miyazaki, Masamune Oguri, Florian Pacaud, Marguerite Pierre, David Rapetti, & Graham P. Smith, **ApJ**, 890, 148 (February 2020)
"Weak-lensing Analysis of X-Ray-selected XXL Galaxy Groups and Clusters with Subaru HSC Data"
68. Brett Salmon, Dan Coe, Larry Bradley, Rychard Bouwens, Marusa Bradac, Kuang-Han Huang, Pascal Oesch, Daniel Stark, Keren Sharon, Michele Trenti, Roberto J. Avila, Sara Ogaz, Felipe Andrade-Santos, Daniela Carrasco, Catherine Cerny, William Dawson, Brenda L. Frye, Austin Hoag, Traci Lin Johnson, Christine Jones, Daniel Lam, Lorenzo Lovisari, Ramesh Mainali, Matt Past, Rachel Paterno-Mahler, Avery Peterson, Adam Riess, Steven A. Rodney, Russel Ryan, Irene Sendra-Server, Lou Strolger, Keiichi Umetsu, Benedetta Vulcani, & Adi Zitrin, **ApJ**, 889, 189 (February 2020)
"RELICS: The Reionization Lensing Cluster Survey and the Brightest High-z Galaxies"
69. G. B. Caminha, P. Rosati, C. Grillo, G. Rosani, K. I. Caputi, M. Meneghetti, A. Mercurio, I. Balestra, P. Bergamini, A. Biviano, M. Nonino, K. Umetsu, E. Vanzella, M. Annunziatella, T. Broadhurst, C. Delgado-Correal, R. Demarco, M. Lombardi, C. Maier, & A. Zitrin, **A&A**, 632, A36 (December 2019)
"Strong Lensing Models of Eight CLASH Clusters from Extensive Spectroscopy: Accurate Total Mass Reconstructions in the Cores"
70. Dan Coe, Brett Salmon, Marusa Bradac, Larry D. Bradley, Keren Sharon, Adi Zitrin, Ana Acebron, Catherine Cerny, Nathalia Cibirka, Victoria Strait, Rachel Paterno-Mahler, Guillaume Mahler, Roberto J. Avila, Sara Ogaz, Kuang-Han Huang, Debora Pelliccia, Daniel P. Stark, Ramesh Mainali, Pascal A. Oesch, Michele Trenti, Daniela Carrasco, William A. Dawson, Steven A. Rodney, Louis-Gregory Strolger, Adam G. Riess, Christine Jones, Brenda L. Frye, Nicole G. Czakon, Keiichi Umetsu, Benedetta Vulcani, Or Graur, Saurabh W. Jha, Melissa L. Graham, Alberto Molino, Mario Nonino, Jens Hjorth, Jonatan Selsing, Lise Christensen, Shotaro Kikuchihara, Masami Ouchi, Masamune Oguri, Brian Welch, Brian C. Lemaux, Felipe Andrade-Santos, Austin T. Hoag, Traci L. Johnson, Avery Peterson, Matthew Past, Carter Fox, Irene Agulli, Rachael Livermore, Russell E. Ryan, Daniel Lam, Irene Sendra-Server, Sune Toft, Lorenzo Lovisari, & Yuanyuan Su, **ApJ**, 884, 85 (October 2019)
"RELICS: Reionization Lensing Cluster Survey"
71. Hironao Miyatake, Nicholas Battaglia, Matt Hilton, Elinor Medezinski, Atsushi J. Nishizawa, Surhud More, Simone Aiola, Neta Bahcall, J. Richard Bond, Erminia Calabrese, Steve K. Choi, Mark J. Devlin, Joanna Dunkley, Rolando Dunner, Brittany Fuzia, Patricio Gallardo, Megan Gralla, Matthew Hasselfield, Mark Halpern, Chiaki Hikage, J. Colin Hill, Adam D. Hincks, Renee Hlozek, Kevin Huffenberger, John P. Hughes, Brian Koopman, Arthur Kosowsky, Thibaut Louis, Mathew S. Madhavacheril, Jeff McMahon, Rachel Mandelbaum, Tobias A. Marriage, Loic Maurin, Satoshi Miyazaki, Kavilan Moodley, Ryoma Murata, Sigurd Naess, Laura Newburgh, Michael D. Niemack, Takahiro Nishimichi, Nobuhiro Okabe, Masamune Oguri, Ken Osato, Lyman Page, Bruce Partridge, Naomi Robertson, Neelima Sehgal, Masato Shirasaki, Jonathan Sievers, Cristobal Sifon, Sara Simon, Blake Sherwin, David N. Spergel, Suzanne T. Staggs, George Stein, Masahiro Takada, Hy Trac, Keiichi Umetsu, Alex van Engelen, & Edward J. Wollack, **ApJ**, 875, 63 (April 2019)
"Weak-Lensing Mass Calibration of ACTPol Sunyaev-Zel'dovich Clusters with the Hyper Suprime-Cam Survey"
72. Ana Acebron, May Alon, Adi Zitrin, Guillaume Mahler, Dan Coe, Keren Sharon, Nathalia Cibirka, Marusa Bradac, Michele Trenti, Keiichi Umetsu, Felipe Andrade-Santos, Roberto J. Avila, Larry Bradley, Daniela Carrasco, Catherine Cerny, Nicole G. Czakon, William A. Dawson, Brenda Frye, Austin T. Hoag, Kuang-Han Huang, Traci L. Johnson, Christine Jones, Shotaro Kikuchihara, Daniel Lam, Rachael C. Livermore, Lorenzo

Lovisari, Ramesh Mainali, Pascal A. Oesch, Sara Ogaz, Masami Ouchi, Matthew Past, Rachel Paterno-Mahler, Avery Peterson, Russell E. Ryan, Brett Salmon, Irene Sendra-Server, Daniel P. Stark, Victoria Strait, Sune Toft, & Benedetta Vulcani, **ApJ**, 874, 132 (April 2019)
"RELICS: High-Resolution Constraints on the Inner Mass Distribution of the $z = 0.83$ Merging Cluster RXJ0152.7-1357 from Strong Lensing"

73. Guillaume Mahler, Keren Sharon, Carter Fox, Dan Coe, Mathilde Jauzac, Victoria Strait, Alastair Edge, Ana Acebron, Felipe Andrade-Santos, Roberto J. Avila, Marusa Bradac, Larry D. Bradley, Daniela Carrasco, Catherine Cerny, Nathalia Cibirka, Nicole G. Czakon, William A. Dawson, Brenda L. Frye, Austin T. Hoag, Kuang-Han Huang, Traci L. Johnson, Christine Jones, Shotaro Kikuchihara, Daniel Lam, Rachael Livermore, Lorenzo Lovisari, Ramesh Mainali, Sara Ogaz, Masami Ouchi, Rachel Paterno-Mahler, Ian U. Roederer, Russell E. Ryan, Brett Salmon, Irene Sendra-Server, Daniel P. Stark, Sune Toft, Michele Trenti, Keiichi Umetsu, Benedetta Vulcani, & Adi Zitrin, **ApJ**, 873, 96 (March 2019)
"RELICS: Strong Lensing Analysis of MACS J0417.5-1154 and Predictions for Observing the Magnified High-Redshift Universe with JWST"
74. Shutaro Ueda*, Yuto Ichinohe, Tetsu Kitayama, & Keiichi Umetsu, **ApJ**, 871, 207 (February 2019)
"Line-of-Sight Gas Sloshing in the Cool Core of Abell 907"
75. Yutaka Fujita, Megan Donahue, Stefano Ettori, Keiichi Umetsu, Elena Rasia, Massimo Meneghetti, Elinor Medezinski, Nobuhiro Okabe, & Marc Postman, **Galaxies**, 7, 8 (January 2019)
"Halo Concentrations and the Fundamental Plane of Galaxy Clusters"
76. Jauzac, M., Eckert, D., Schaller, M., Schwinn, J., Massey, R.; Bahe, Y., Baugh, C., Barnes, D., Dalla Vecchia, C., Ebeling, H., Harvey, D., Jullo, E., Kay, S. T., Kneib, J.-P., Limousin, M., Medezinski, E., Natarajan, P., Nonino, M., Robertson, A., Tam, S. I., & Umetsu, K, **MNRAS**, 481, 2901 (December 2018)
"Growing a 'Cosmic Beast': Observations and Simulations of MACS J0717.5+3745"
77. Brett Salmon, Dan Coe, Larry Bradley, Marusa Bradac, Kuang-Han Huang, Victoria Strait, Pascal Oesch, Rachel Paterno-Mahler, Adi Zitrin, Ana Acebron, Nathalia Cibirka, Shotaro Kikuchihara, Masamune Oguri, Gabriel B. Brammer, Keren Sharon, Michele Trenti, Roberto J. Avila, Sara Ogaz, Felipe Andrade-Santos, Daniela Carrasco, Catherine Cerny, William Dawson, Brenda L. Frye, Austin Hoag, Christine Jones, Ramesh Mainali, Masami Ouchi, Steven A. Rodney, Daniel Stark, & Keiichi Umetsu, **ApJL**, 864, L225 (September 2018)
"RELICS: A Candidate $z \sim 10$ Galaxy Strongly Lensed into a Spatially Resolved Arc"
78. Rachel Paterno-Mahler, Keren Sharon, Dan Coe, Guillaume Mahler, Catherine Cerny, Traci Johnson, Tim Schrabback, Felipe Andrade-Santos, Roberto J. Avila, Marusa Bradac, Larry D. Bradley, Daniela Carrasco, Nicole G. Czakon, William A. Dawson, Brenda L. Frye, Austin T. Hoag, Kuang-Han Huang, Christine Jones, Daniel Lam, Rachael Livermore, Lorenzo Lovisari, Ramesh Mainali, Pascal A. Oesch, Sara Ogaz, Matthew Past, Avery Peterson, Russell E. Ryan, Brett Salmon, Irene Sendra-Server, Daniel P. Stark, Keiichi Umetsu, Benedetta Vulcani, & Adi Zitrin, **ApJ**, 863, 154 (August 2018)
"RELICS: A Strong Lens Model for SPT-CLJ0615-5746, a $z = 0.972$ Cluster"
79. Nathalia Cibirka, Ana Acebron, Adi Zitrin, Dan Coe, Irene Agulli, Felipe Andrade-Santos, Marusa Bradac, Brenda Frye, Rachael C. Livermore, Guillaume Mahler, Brett Salmon, Keren Sharon, Michele Trenti, Keiichi Umetsu, Roberto Avila, Larry Bradley, Daniela Carrasco, Catherine Cerny, Nicole G. Czakon, William A. Dawson, Austin T. Hoag, Kuang-Han Huang, Traci L. Johnson, Christine Jones, Shotaro Kikuchihara, Daniel Lam, Lorenzo Lovisari, Ramesh Mainali, Pascal A. Oesch, Sara Ogaz, Masami Ouchi, Matthew Past, Rachel Paterno-Mahler, Avery Peterson, Russell E. Ryan, Irene Sendra-Server, Daniel P. Stark, Victoria Strait, Sune Toft, & Benedetta Vulcani, **ApJ**, 863, 145 (August 2018)
"RELICS: Strong Lensing Analysis of the Galaxy Clusters Abell S295, Abell 697, MACS J0025.4-1222, and MACS J0159.8-0849"
80. Ang Liu, Heng Yu, Antonaldo Diaferio, Paolo Tozzi, Ho Seong Hwang, Keiichi Umetsu, Nobuhiro Okabe, & Li-Lan Yang, **ApJ**, 863, 102 (August 2018)
"Inside a Beehive: the Multiple Merging Processes in the Galaxy Cluster Abell 2142"
81. Yutaka Fujita, Keiichi Umetsu, Stefano Ettori, Elena Rasia, Nobuhiro Okabe, & Massimo Meneghetti, **ApJ**, 863, 37 (August 2018)
"A New Interpretation of the Mass-Temperature Relation and Mass Calibration of Galaxy Clusters based on the Fundamental Plane"
82. Teppei Okumura, Takahiro Nishimichi, Keiichi Umetsu, & Ken Osato, **Physical Review D**, 98, 023523 (July 2018)
"Splashback Radius of Nonspherical Dark Matter Halos from Cosmic Density and Velocity Fields"

83. Seth R. Siegel, Jack Sayers, Andisheh Mahdavi, Megan Donahue, Julian Merten, Adi Zitrin, Massimo Meneghetti, Keiichi Umetsu, Nicole G. Czakon, Sunil R. Golwala, Marc Postman, Patrick M. Koch, Anton M. Koekemoer, Kai-Yang Lin, Peter Melchior, Sandor M. Molnar, Leonidas Moustakas, Tony K. Mroczkowski, Elena Pierpaoli, & Jennifer Shitanishi, **ApJ**, 861, 71 (July 2018)
"Constraints on the Mass, Concentration, and Nonthermal Pressure Support of Six CLASH Clusters from a Joint Analysis of X-ray, SZ, and Lensing Data"
84. I-Non Chiu*, Keiichi Umetsu, Mauro Sereno, Stefano Ettori, Massimo Meneghetti, Julian Merten, Jack Sayers, & Adi Zitrin, **ApJ**, 860, 126 (June 2018)
"CLUMP-3D: Three-dimensional Shape and Structure of 20 CLASH Galaxy Clusters from Combined Weak and Strong Lensing"
85. Keiichi Umetsu*, Mauro Sereno, Sut-leng Tam, I-Non Chiu, Zuhui Fan, Stefano Ettori, Daniel Gruen, Teppei Okumura, Elinor Medezinski, Megan Donahue, Massimo Meneghetti, Brenda Frye, Anton Koekemoer, Tom Broadhurst, Adi Zitrin, Italo Balestra, Narciso Benitez, Yuichi Higuchi, Peter Melchior, Amata Mercurio, Julian Merten, Alberto Molino, Mario Nonino, Marc Postman, Piero Rosati, Jack Sayers, & Stella Seitz, **ApJ**, 860, 104 (June 2018)
"The Projected Dark and Baryonic Ellipsoidal Structure of 20 CLASH Galaxy Clusters"
86. Mauro Sereno, Keiichi Umetsu, Stefano Ettori, Jack Sayers, I-Non Chiu, Massimo Meneghetti, Jesus Vega-Ferrero, & Adi Zitrin, **ApJL**, 860, L4 (June 2018)
"CLUMP-3D: Testing Λ CDM with Galaxy Cluster Shapes"
87. Catherine Cerny, Keren Sharon, Felipe Andrade-Santos, Roberto J. Avila, Marusa Bradac, Larry D. Bradley, Rychard J. Bouwens, Daniela Carrasco, Dan Coe, Nicole G. Czakon, William A. Dawson, Brenda L. Frye, Austin T. Hoag, Kuang-Han Huang, Traci L. Johnson, Christine Jones, Daniel Lam, Lorenzo Lovisari, Ramesh Mainali, Pascal A. Oesch, Sara Ogaz, Matthew Past, Rachel Paterno-Mahler, Avery Peterson, Adam G. Riess, Steven A. Rodney, Russell E. Ryan, Brett Salmon, Irene Sendra-Server, Daniel P. Stark, Louis-Gregory Strolger, Michele Trenti, Keiichi Umetsu, Benedetta Vulcani, & Adi Zitrin, **ApJ**, 859, 159 (June 2018)
"RELICS: Strong Lens Models for Five Galaxy Clusters from the Reionization Lensing Cluster Survey"
88. Ana Acebron, Nathalia Cibirka, Adi Zitrin, Dan Coe, Irene Agulli, Keren Sharon, Marusa Bradac, Brenda Frye, Rachael C. Livermore, Guillaume Mahler, Brett Salmon, Keiichi Umetsu, Larry Bradley, Felipe Andrade-Santos, Roberto Avila, Daniela Carrasco, Catherine Cerny, Nicole G. Czakon, William A. Dawson, Austin T. Hoag, Kuang-Han Huang, Traci L. Johnson, Christine Jones, Shotaro Kikuchihara, Daniel Lam, Lorenzo Lovisari, Ramesh Mainali, Pascal A. Oesch, Sara Ogaz, Masami Ouch, Matthew Past, Rachel Paterno-Mahler, Avery Peterson, Russell E. Ryan, Irene Sendra-Server, Daniel P. Stark, Victoria Strait, Sune Toft, Michele Trenti, & Benedetta Vulcani, **ApJ**, 858, 42 (May 2018)
"RELICS: Strong-lensing Analysis of the Massive Clusters MACS J0308.9+2645 and PLCK G171.9-40.7"
89. Yutaka Fujita, Keiichi Umetsu, Elena Rasia, Massimo Meneghetti, Megan Donahue, Elinor Medezinski, Nobuhiro Okabe, & Marc Postman, **ApJ**, 857, 118 (April 2018)
"Discovery of a New Fundamental Plane Dictating Galaxy Cluster Evolution from Gravitational Lensing"
90. Yolanda Jimenez-Teja, Renato Dupke, Narciso Benítez, Anton M. Koekemoer, Adi Zitrin, Keiichi Umetsu, Bodo L. Ziegler, Brenda L. Frye, Holland Ford, Rychard J. Bouwens, Larry D. Bradley, Thomas Broadhurst, Dan Coe, Megan Donahue, Genevieve J. Graves, Claudio Grillo, Leopoldo Infante, Stephanie Jouvel, Daniel D. Kelson, Ofer Lahav, Ruth Lazkoz, Dorom Lemze, Dan Maoz, Elinor Medezinski, Peter Melchior, Massimo Meneghetti, Amata Mercurio, Julian Merten, Alberto Molino, Leonidas A. Moustakas, Mario Nonino, Sara Ogaz, Adam G. Riess, Piero Rosati, Jack Sayers, Stella Seitz, & Wei Zheng, **ApJ**, 857, 79 (April 2018)
"Unveiling the Dynamical State of Massive Clusters through the ICL Fraction"
91. Elinor Medezinski, Masamune Oguri, Atsushi J. Nishizawa, Joshua S. Speagle, Hironao Miyatake, Keiichi Umetsu, Alexie Leauthaud, Ryoma Murata, Rachel Mandelbaum, Cristobal Sifon, Michael A. Strauss, Song Huang, Melanie Simet, Nobuhiro Okabe, Masayuki Tanaka, & Yutaka Komiyama, **PASJ**, 70, 30 (March 2018)
"Source Selection for Cluster Weak Lensing Measurements in the Hyper Suprime-Cam Survey"
92. Elinor Medezinski, Nicholas Battaglia, Keiichi Umetsu, Masamune Oguri, Hironao Miyatake, Atsushi J. Nishizawa, Cristobal Sifon, David N. Spergel, I-Non Chiu, Yen-Ting Lin, Neta Bahcall, & Yutaka Komiyama, **PASJ**, 70, S28 (January 2018)
"Planck Sunyaev-Zel'dovich Cluster Mass Calibration using Hyper Suprime-Cam Weak Lensing"
93. S. Miyazaki, M. Oguri, T. Hamana, M. Shirasaki, M. Koike, Y. Komiyama, K. Umetsu, Y. Utsumi, N. Okabe, S. More, E. Medezinski, Y.-T. Lin, H. Miyatake, H. Murayama, N. Ota, & I. Mitsuishi, **PASJ**, 70, S27 (January 2018)
"A Large Sample of Shear Selected Clusters from the Hyper Suprime-Cam Subaru Strategic Program S16A Wide Field Mass Maps"

94. Keita Miyaoka, Nobuhiro Okabe, Takao Kitaguchi, Masamune Oguri, Yasushi Fukazawa, Rachel Mandelbaum, Elinor Medezinski, Atsushi J. Nishizawa, Takashi Hamana, Yen-Ting Lin, Hiroki Akamatsu, I-Non Chiu, Yutaka Fujita, Yuto Ichinohe, Yutaka Komiyama, Toru Sasaki, Motokazu Takizawa, Shutaro Ueda, Keiichi Umetsu, Jean Coupon, Chiaki Hikage, Akio Hoshino, Alexie Leauthaud, Kyoko Matsushita, Ikuyuki Mitsuishi, Hironao Miyatake, Satoshi Miyazaki, Surhud More, Kazuhiro Nakazawa, Naomi Ota, Kousuke Sato, David Spergel, Takayuki Tamura, Masayuki Tanaka, Manobu M. Tanaka, & Yousuke Utsumi, **PASJ**, 70, S22 (January 2018)
"Multiwavelength study of X-ray Luminous Clusters in the Hyper Suprime-Cam Subaru Strategic Program S16A field"
95. H. Aihara, R. Armstrong, S. Bickerton, J. Bosch, J. Coupon, H. Furusawa, Y. Hayashi, H. Ikeda, Y. Kamata, H. Karoji, S. Kawanomoto, M. Koike, Y. Komiyama, D. Lang, R. H. Lupton, S. Mineo, H. Miyatake, S. Miyazaki, T. Morokuma, Y. Obuchi, Y. Oishi, Y. Okura, P. A. Price, T. Takata, M.M. Tanaka, M. Tanaka, Y. Tanaka, T. Uchida, F. Uraguchi, Y. Utsumi, S.-Y. Wang, Y. Yamada, H. Yamanoi, N. Yasuda, N. Arimoto, M. Chiba, F. Finet, H. Fujimori, S. Fujimoto, J. Furusawa, T. Goto, A. Goulding, J. E. Gunn, Y. Harikane, T. Hattori, M. Hayashi, K. G. Helminiak, R. Higuchi, C. Hikage, P. T. P. Ho, B.-C. Hsieh, K. Huang, S. Huang, M. Imanishi, I. Iwata, A. T. Jaelani, H.-Y. Jian, N. Kashikawa, N. Katayama, T. Kojima, A. Konno, S. Koshida, H. Kusakabe, A. Leauthaud, C.-H. Lee, L. Lin, Y.-T. Lin, R. Mandelbaum, Y. Matsuoka, E. Medezinski, S. Miyama, R. Momose, A. More, S. More, S. Mukae, R. Murata, H. Murayama, T. Nagao, F. Nakata, M. Niida, H. Niikura, A. J. Nishizawa, M. Oguri, N. Okabe, Y. Ono, M. Onodera, M. Onoue, M. Ouchi, T.-S. Pyo, T. Shibuya, K. Shimasaku, M. Simet, J. Speagle, D. N. Spergel, M. A. Strauss, Y. Sugahara, N. Sugiyama, Y. Suto, N. Suzuki, P. J. Tait, M. Takada, T. Terai, Y. Toba, E. L. Turner, H. Uchiyama, K. Umetsu, Y. Urata, T. Usuda, S. Yeh, & S. Yuma, **PASJ**, 70, S8 (January 2018)
"First Data Release of the Hyper Suprime-Cam Subaru Strategic Program"
96. H. Aihara, N. Arimoto, R. Armstrong, S. Arnouts, N. A. Bahcall, S. Bickerton, J. Bosch, K. Bundy, P. L. Capak, J. H. H. Chan, M. Chiba, J. Coupon, E. Egami, M. Enoki, F. Finet, H. Fujimori, S. Fujimoto, H. Furusawa, J. Furusawa, T. Goto, A. Goulding, J. P. Greco, J. E. Greene, J. E. Gunn, T. Hamana, Y. Harikane, Y. Hashimoto, T. Hattori, M. Hayashi, Y. Hayashi, K. G. Helminiak, R. Higuchi, C. Hikage, P. T. P. Ho, B.-C. Hsieh, K. Huang, S. Huang, H. Ikeda, M. Imanishi, A. K. Inoue, K. Iwasawa, I. Iwata, A. T. Jaelani, H.-Y. Jian, Y. Kamata, H. Karoji, N. Kashikawa, N. Katayama, S. Kawanomoto, I. Kayo, J. Koda, M. Koike, T. Kojima, Y. Komiyama, A. Konno, S. Koshida, Y. Koyama, H. Kusakabe, A. Leauthaud, C.-H. Lee, L. Lin, Y.-T. Lin, R. H. Lupton, R. Mandelbaum, Y. Matsuoka, E. Medezinski, S. Mineo, S. Miyama, H. Miyatake, S. Miyazaki, R. Momose, A. More, S. More, Y. Moritani, T. J. Moriya, T. Morokuma, S. Mukae, R. Murata, H. Murayama, T. Nagao, F. Nakata, M. Niida, H. Niikura, A. J. Nishizawa, Y. Obuchi, M. Oguri, Y. Oishi, N. Okabe, S. Okamoto, Y. Okura, Y. Ono, M. Onodera, M. Onoue, K. Osato, M. Ouchi, P. A. Price, T.-S. Pyo, M. Sako, M. Sawicki, T. Shibuya, K. Shimasaku, A. Shimono, M. Shirasaki, J. D. Silverman, M. Simet, J. Speagle, D. N. Spergel, M. A. Strauss, Y. Sugahara, N. Sugiyama, Y. Suto, S. H. Suyu, N. Suzuki, P. J. Tait, M. Takada, T. Takata, N. Tamura, M. M. Tanaka, M. Tanaka, M. Tanaka, Y. Tanaka, T. Terai, Y. Terashima, Y. Toba, N. Tominaga, J. Toshikawa, E. L. Turner, T. Uchida, H. Uchiyama, K. Umetsu, F. Uraguchi, Y. Urata, T. Usuda, Y. Utsumi, S.-Y. Wang, W.-H. Wang, K. C. Wong, K. Yabe, Y. Yamada, H. Yamanoi, N. Yasuda, S. Yeh, A. Yonehara, & S. Yuma, **PASJ**, 70, S4 (January 2018)
"The Hyper Suprime-Cam SSP Survey: Overview and Survey Design"
97. G. B. Caminha, C. Grillo, P. Rosati, M. Meneghetti, A. Mercurio, S. Ettori, I. Balestra, A. Biviano, K. Umetsu, E. Vanzella, M. Annunziatella, M. Bonamigo, C. Delgado-Correal, M. Girardi, M. Lombardi, M. Nonino, B. Sartoris, P. Tozzi, M. Bartelmann, L. Bradley, K. I. Caputi, D. Coe, H. Ford, R. Gobat, M. Postman, S. Seitz, & A. Zitrin, **A&A**, 607, 93 (November 2017)
"Mass Distribution in the Core of MACS J1206: Robust Modeling from an Exceptionally Large Sample of Central Multiple Images"
98. Thomas Connor, Megan Donahue, Daniel D. Kelson, John Moustakas, Dan Coe, Marc Postman, Larry D. Bradley, Anton M. Koekemoer, Peter Melchior, Keiichi Umetsu, & G. Mark Voit, **ApJ**, 848, 37 (October 2017)
"Crowded Field Galaxy Photometry: Precision Colors in the CLASH Clusters"
99. A. Molino, N. Benitez, B. Ascaso, D. Coe, M. Postman, S. Jouvel, O. Host, O. Lahav, S. Seitz, E. Medezinski, P. Rosati, W. Schoenell, A. Koekemoer, Y. Jimenez-Teja, T. Broadhurst, P. Melchior, I. Balestra, M. Bartelmann, R. Bouwens, L. Bradley, N. Czakon, M. Donahue, H. Ford, O. Graur, G. Graves, C. Grillo, L. Infante, S. W. Jha, D. Kelson, R. Lazkoz, D. Lemze, D. Maoz, A. Mercurio, M. Meneghetti, J. Merten, L. Mostazas, M. Nonino, S. Orgaz, A. Riess, S. Rodney, J. Sayers, K. Umetsu, W. Zheng, & A. Zitrin, **MNRAS**, 470, 95 (September 2017)
"CLASH: Accurate Photometric Redshifts with 14 HST bands in Massive Galaxy Cluster Cores"
100. C. J. J. Pearce, R. J. van Weeren, F. Andrade-Santos, C. Jones, W. R. Forman, M. Bruggen, E. Bulbul, T. E. Clarke, R. P. Kraft, E. Medezinski, T. Mroczkowski, M. Nonino, P. E. J. Nulsen, S. W. Randall, & K. Umetsu,

ApJ, 845, 81 (August 2017)

"VLA Radio Observations of the HST Frontier Fields Cluster Abell 2744: the Discovery of New Radio Relics"

101. Kenneth C. Wong, Catie Raney, Charles R. Keeton, Keiichi Umetsu, Ann I. Zabludoff, S. Mark Ammons, & K. Decker French, **ApJ**, 844, 127 (August 2017)
"Joint Strong and Weak Lensing Analysis of the Massive Cluster Field J0850+3604"
102. Gary A. Wegner, Keiichi Umetsu, Sandor M. Molnar, Mario Nonino, Elinor Medezinski, Felipe Andrade-Santos, Akos Bogdan, Lorenzo Lovisari, William R. Forman, & Christine Jones, **ApJ**, 844, 67 (July 2017)
"The Double Galaxy Cluster Abell 2465 III. X-ray and Weak-lensing Observations"
103. L. Pizzuti, B. Sartoris, L. Amendola, S. Borgani, A. Biviano, K. Umetsu, A. Mercurio, P. Rosati, I. Balestra, G. B. Caminha, M. Girardi, C. Grillo, & M. Nonino, **JCAP**, 2017, 023 (July 2017)
"CLASH-VLT: Constraints on $f(R)$ Gravity Models with Galaxy Clusters using Lensing and Kinematic Analysis"
104. Mauro Sereno, Stefano Ettori, Massimo Meneghetti, Jack Sayers, Keiichi Umetsu, Julian Merten, I-Non Chiu, & Adi Zitrin, **MNRAS**, 467, 3801 (June 2017)
"CLUMP-3D: Three Dimensional Lensing and Multi-probe Analysis of MACS J1206.2-0847, A Remarkably Regular Cluster"
105. Pablo Jimeno, Tom Broadhurst, Ruth Lazkoz, Raul Angulo, Jose-Maria Diego, Keiichi Umetsu, & Ming-chung Chu, **MNRAS**, 466, 2658 (April 2017)
"Precise Clustering and Density Evolution of redMaPPer Galaxy Clusters versus MXXL Simulation"
106. M. Pierre, C. Adami, M. Birkinshaw, L. Chiappetti, S. Ettori, A. Evrard, L. Faccioli, F. Gastaldello, P. Giles, C. Horellou, A. Iovino, E. Koulouridis, C. Lidman, A. Le Brun, B. Maughan, S. Maurogordato, I. McCarthy, S. Miyazaki, F. Pacaud, S. Paltani, M. Plionis, T. Reiprich, T. Sadibekova, V. Smolcic, S. Snowden, J. Surdej, M. Tsiros, C. Vignali, J. Willis, S. Alis, B. Altieri, N. Baran, C. Benoist, A. Bongiorno, M. Bremer, A. Butler, A. Cappi, C. Caretta, P. Ciliegi, N. Clerc, P. S. Corasaniti, J. Coupon, J. Delhaize, I. Delvecchio, J. Democles, Sh. Desai, J. Devriendt, Y. Dubois, D. Eckert, A. Elyiv, A. Farahi, C. Ferrari, S. Fotopoulou, W. Forman, I. Georgantopoulos, V. Guglielmo, M. Huynh, N. Jerlin, Ch. Jones, S. Lavoie, J.-P. Le Fevre, M. Lieu, M. Kilbinger, F. Marulli, A. Mantz, S. McGee, J.-B. Melin, O. Melnyk, L. Moscardini, M. Novak, E. Piconcelli, B. Poggianti, D. Pomarede, E. Pompei, T. Ponman, M. E. Ramos Ceja, P. Ranalli, D. Rapetti, S. Raychaudhury, M. Ricci, H. Rottgering, M. Sahlen, J.-L. Sauvageot, C. Schmid, M. Sereno, G. P. Smith, K. Umetsu, P. Valageas, A. Valotti, I. Valtchanov, A. Veropalumbo, B. Ascaso, D. Barnes, M. De Petris, F. Durret, M. Donahue, M. Ithana, M. Jarvis, M. Johnston-Hollitt, E. Kalfountzou, S. Kay, F. La Franca, N. Okabe, A. Muzzin, A. Rettura, F. Ricci, J. Ridl, G. Risaliti, M. Takizawa, P. Thomas, & N. Truongm, **Astronomische Nachrichten**, 338, 334 (March 2017)
"The XXL Survey: First Results and Future"
107. Keiichi Umetsu* & Benedikt Diemer, **ApJ**, 836, 231 (February 2017)
"Lensing Constraints on the Mass Profile Shape and the Splashback Radius of Galaxy Clusters"
108. R. J. van Weeren, G. A. Ogrean, C. Jones, W. R. Forman, F. Andrade-Santos, Connor J. J. Pearce, A. Bonafede, M. Bruggen, E. Bulbul, T. E. Clarke, E. Churazov, L. David, W. A. Dawson, M. Donahue, A. Goulding, R. P. Kraft, B. Mason, J. Merten, T. Mroczkowski, P. E. J. Nulsen, P. Rosati, E. Roediger, S. W. Randall, J. Sayers, K. Umetsu, A. Vikhlinin, & A. Zitrin, **ApJ**, 835, 197 (February 2017)
"Chandra and JVLA Observations of HST Frontier Fields Cluster MACS J0717.5+3745"
109. Yutaka Fujita, Takuya Akahori, Keiichi Umetsu, Craig L. Sarazin, & Ka-Wah Wong **ApJ**, 834, 13 (January 2017)
"Probing WHIM around Galaxy Clusters with Fast Radio Bursts and the Sunyaev-Zel'dovich Effect"
110. Kai-Yang Lin, Hiroaki Nishioka, Fu-Cheng Wang, Chih-Wei Locutus Huang, Yu-Wei Liao, Jiun-Huei Proty Wu, Patrick M. Koch, Keiichi Umetsu, Ming-Tang Chen, Shun-Hsiang Chan, Shu-Hao Chang, Wen-Hsuan Lucky Chang, Tai-An Cheng, Hoang Ngoc Duy, Szu-Yuan Fu, Chih-Chiang Han, Solomon Ho, Ming-Feng Ho, Paul T. P. Ho, Yau-De Huang, Homin Jiang, Derek Y. Kubo, Chao-Te Li, Yu-Chiung Lin, Guo-Chin Liu, Pierre Martin-Cocher, Sandor M. Molnar, Emmanuel Nunez, Peter Oshiro, Shang-Ping Pai, Philippe Raffin, Anthony Ridenour, Chia-You Shih, Sara Stoebner, Giap-Siong Teo, Jia-Long Johnny Yeh, Joshua Williams, & Mark Birkinshaw, **ApJ**, 830, 91 (October 2016)
"AMiBA: Cluster Sunyaev-Zel'dovich Effect Observations with the Expanded 13-element Array"
111. I. Balestra, A. Mercurio, B. Sartoris, M. Girardi, C. Grillo, M. Nonino, P. Rosati, A. Biviano, S. Ettori, W. Forman, C. Jones, A. Koekemoer, E. Medezinski, G. A. Ogrean, P. Tozzi, K. Umetsu, E. Vanzella, R. J. van Weeren, A. Zitrin, M. Annunziatella, G. B. Caminha, T. Broadhurst, D. Coe, M. Donahue, A. Fritz, B. Frye, D. Kelson, M. Lombardi, C. Maier, M. Meneghetti, A. Monna, M. Postman, M. Scodeggio, S. Seitz, & B. Ziegler, **ApJS**, 224,

33 (June 2016)

"CLASH-VLT: Dissecting the Frontier Fields Galaxy Cluster MACS J0416.1-2403 with ~800 Spectra of Member Galaxies"

112. W. G. Parry, M. Lombardi, C. Grillo, G. B. Caminha, A. Mercurio, M. Nonino, I. Balestra, A. M. Koekemoer, P. Rosati, L. Christensen, & K. Umetsu, **MNRAS**, 458, 1493 (May 2016)
"Dark Matter Fraction of Low-mass Cluster Members Probed by Galaxy-scale Strong Lensing"
113. Keiichi Umetsu*, Adi Zitrin, Daniel Gruen, Julian Merten, Megan Donahue, & Marc Postman, **ApJ**, 821, 116 (April 2016)
"CLASH: Joint Analysis of Strong-lensing, Weak-lensing Shear, and Magnification Data for 20 Galaxy Clusters"
114. L. Pizzuti, B. Sartoris, S. Borgani, L. Amendola, K. Umetsu, A. Biviano, M. Girardi, P. Rosati, B. Caminha, B. Frye, A. Koekemoer, C. Grillo, M. Lombardi, A. Mercurio, & M. Nonino, **JCAP**, 04, 023 (April 2016)
"CLASH-VLT: Testing the Nature of Gravity with Galaxy Clusters Mass Profiles"
115. G. A. Ogrean, R. J. van Weeren, C. Jones, W. Forman, W. A. Dawson, N. Golovich, F. Andrade-Santos, S. S. Murray, P. Nulsen, E. Roediger, A. Zitrin, E. Bulbul, R. Kraft, A. Goulding, K. Umetsu, T. Mroczkowski, A. Bonafede, S. Randall, J. Sayers, E. Churazov, L. David, J. Merten, M. Donahue, B. Mason, P. Rosati, A. Vikhlinin, & H. Ebeling, **ApJ**, 819, 113 (March 2016)
"Frontier Fields Clusters: Deep Chandra Observations of the Complex Merger MACS J1149.6+2223"
116. G. B. Caminha, C. Grillo, P. Rosati, I. Balestra, W. Karman, M. Lombardi, A. Mercurio, M. Nonino, P. Tozzi, A. Zitrin, A. Biviano, M. Girardi, A. M. Koekemoer, M. Meneghetti, E. Munari, S. H. Suyu, K. Umetsu, M. Annunziatella, S. Borgani, T. Broadhurst, K. Caputi, D. Coe, C. Delgado-Correal, S. Ettori, A. Fritz, B. Frye, R. Gobat, C. Maier, A. Monna, M. Postman, B. Sartoris, S. Seitz, E. Vanzella, & B. Ziegler, **A&A**, 587, A80 (March 2016)
"CLASH-VLT: A Highly Precise Strong Lensing Model of the Galaxy Cluster RXC J2248.7-4431 (Abell 1063) and Prospects for Cosmography"
117. N. Okabe, K. Umetsu, T. Tamura, Y. Fujita, M. Takizawa, K. Matsushita, Y. Fukazawa, T. Futamase, M. Kawaharada, S. Miyazaki, Y. Mochizuki, K. Nakazawa, T. Ohashi, N. Ota, T. Sasaki, K. Sato, & S. I. Tam, **MNRAS**, 456, 4475 (March 2016)
"Central Mass Profiles of the Nearby Cool-core Galaxy Clusters Hydra A and A478"
118. R. J. van Weeren, G. Ogrean, C. Jones, W. Forman, F. Andrade-Santos, A. Bonafede, M. Bruggen, E. Bulbul, T. Clarke, E. Churazov, L. David, W. Dawson, M. Donahue, A. Goulding, R. Kraft, B. Mason, J. Merten, T. Mroczkowski, S. Murray, P. Nulsen, P. Rosati, E. Roediger, S. Randall, J. Sayers, K. Umetsu, A. Vikhlinin, & A. Zitrin, **ApJ**, 817, 98 (February 2016)
"The Discovery of Lensed Radio and X-ray Sources behind the Frontier Fields Cluster MACS J0717.5+3745 with the JVLA and Chandra"
119. Bingxiao Xu, Marc Postman, Massimo Meneghetti, Stella Seitz, Adi Zitrin, Julian Merten, Dani Maoz, Brenda Frye, Keiichi Umetsu, Wei Zheng, Larry Bradley, Jesus Vega, & Anton Koekemoer, **ApJ**, 817, 85 (February 2016)
"The Detection and Statistics of Giant Arcs Behind CLASH Clusters"
120. G. P. Smith, P. Mazzotta, N. Okabe, F. Ziparo, S. L. Mulroy, A. Babul, A. Finoguenov, I. G. McCarthy, M. Lieu, Y. Bahe, H. Bourdin, J. E. Carlstrom, A. E. Evrard, T. Futamase, C. P. Haines, M. Jauzac, D. P. Marrone, R. Martino, P. E. May, J. E. Taylor, & K. Umetsu, **MNRAS**, 456, L74 (February 2016)
"LoCuSS: Testing Hydrostatic Equilibrium in Galaxy Clusters"
121. Elinor Medezinski, Keiichi Umetsu, Nobuhiro Okabe, Mario Nonino, Sandor Molnar, Richard Massey, Renato Dupke, & Julian Merten, **ApJ**, 817, 24 (January 2016)
"Frontier Fields: Subaru Weak-lensing Analysis of the Merging Galaxy Cluster A2744"
122. Nobuhiro Okabe, Hiroki Akamatsu, Jun Kakuwa, Yutaka Fujita, Yuying Zhang, Masayuki Tanaka, & Keiichi Umetsu, **PASJ**, 67, 114 (December 2015)
"Radio Relics Tracing the Projected Mass Distribution in CIZA J2242.8+5301"
123. G. Ogrean, R. van Weeren, C. Jones, T. E. Clarke, J. Sayers, T. Mroczkowski, P. E. J. Nulsen, W. Forman, S. S. Murray, M. Pandey-Pommier, S. Randall, E. Churazov, A. Bonafede, R. Kraft, L. David, F. Andrade-Santos, J. Merten, A. Zitrin, K. Umetsu, A. Goulding, E. Roediger, J. Bagchi, E. Bulbul, M. Donahue, H. Ebeling, M. Johnston-Hollitt, B. Mason, P. Rosati, & A. Vikhlinin, **ApJ**, 812, 153 (October 2015)
"Frontier Fields Clusters: Chandra and JVLA View of the Pre-merging Cluster MACS J0416.1-2403"
124. Alexander H. Young, Tony Mroczkowski, Charles Romero, Jack Sayers, Italo Balestra, Tracy E. Clarke, Nicole Czakon, Mark Devlin, Simon R. Dicker, Chiara Ferrari, Marisa Girardi, Sunil Golwala, Huib Intema, Phillip

M. Korngut, Brian S. Mason, Amata Mercurio, Mario Nonino, Erik D. Reese, Piero Rosati, Craig Sarazin, & Keiichi Umetsu, **ApJ**, 809, 185 (August 2015)

"Measurements of the Sunyaev-Zel'dovich Effect in MACSJ0647.7+7015 and MACSJ1206.2-0847 at High Angular Resolution with MUSTANG"

125. M. Girardi, A. Mercurio, I. Balestra, M. Nonino, A. Biviano, C. Grillo, P. Rosati, M. Annunziatella, R. Demarco, A. Fritz, R. Gobat, D. Lemze, V. Presotto, M. Scodeggio, P. Tozzi, G. Bartosch Caminha, M. Brescia, D. Coe, D. Kelson, A. Koekemoer, M. Lombardi, E. Medezinski, M. Postman, B. Sartoris, K. Umetsu, A. Zitrin, W. Boschin, O. Czoske, G. De Lucia, U. Kuchner, C. Maier, M. Meneghetti, P. Monaco, A. Monna, E. Munari, S. Seitz, M. Verdugo, & B. Ziegler, **A&A**, 579, A4 (July 2015)
"CLASH-VLT: Substructure in the Galaxy Cluster MACS J1206.2-0847 from Kinematics of Galaxy Populations"
126. Keiichi Umetsu*, Mauro Sereno, Elinor Medezinski, Mario Nonino, Tony Mroczkowski, Jose M. Diego, Stefano Ettori, Nobuhiro Okabe, Tom Broadhurst, & Doron Lemze, **ApJ**, 806, 207 (June 2015)
"Three-dimensional Multi-probe Analysis of the Galaxy Cluster A1689"
127. N. G. Czakon*, J. Sayers, A. Mantz, S. R. Golwala, T. P. Downes, P. M. Koch, K.-Y. Lin, S. M. Molnar, L. A. Moustakas, T. Mroczkowski, E. Pierpaoli, J. A. Shitanishi, S. Siegel, & K. Umetsu, **ApJ**, 806, 18 (June 2015)
"Galaxy Cluster Scaling Relations between BOLOCAM Sunyaev-Zel'dovich Effect and Chandra X-Ray Measurements"
128. J. Merten, M. Meneghetti, M. Postman, K. Umetsu, A. Zitrin, E. Medezinski, M. Nonino, A. Koekemoer, P. Melchior, D. Gruen, L. A. Moustakas, M. Bartelmann, O. Host, M. Donahue, D. Coe, A. Molino, S. Jouvel, A. Monna, S. Seitz, N. Czakon, D. Lemze, D. Lemze, I. Balestra, P. Rosati, N. Benitez, A. Biviano, R. Bouwens, L. Bradley, T. Broadhurst, M. Carrasco, H. Ford, C. Grillo, L. Infante, D. Kelson, O. Lahav, R. Massey, J. Moustakas, E. Rasia, J. Rhodes, J. Vega, & W. Zheng, **ApJ**, 806, 4 (June 2015)
"CLASH: The Concentration-Mass Relation for Galaxy Clusters"
129. Pablo Jimeno, Tom Broadhurst, Jean Coupon, Keiichi Umetsu, & Ruth Lazkoz, **MNRAS**, 448, 1999 (April 2015)
"Comparing Gravitational Redshifts of SDSS Galaxy Clusters with the Magnification Redshift Enhancement of Background BOSS galaxies"
130. Adi Zitrin, Agnese Fabris, Julian Merten, Peter Melchior, Massimo Meneghetti, Anton Koekemoer, Dan Coe, Matteo Maturi, Matthias Bartelmann, Marc Postman, Keiichi Umetsu, Gregor Seidel, Irene Sendra, Tom Broadhurst, Italo Balestra, Andrea Biviano, Claudio Grillo, Amata Mercurio, Mario Nonino, Piero Rosati, Larry Bradley, Mauricio Carrasco, Megan Donahue, Holland Ford, Brenda L. Frye, & John Moustakas, **ApJ**, 801, 44 (March 2015)
"Hubble Space Telescope Combined Strong and Weak Lensing Analysis of the CLASH Sample: Mass and Magnification Models and Systematic Uncertainties"
131. Xingxing Huang, Wei Zheng, Junxian Wang, Holland Ford, Doron Lemze, John Moustakas, Xinwen Shu, Arjen Van der Wel, Adi Zitrin, Brenda L. Frye, Marc Postman, Matthias Bartelmann, Narciso Benitez, Larry Bradley, Tom Broadhurst, Dan Coe, Megan Donahue, Leopoldo Infante, Daniel Kelson, Anton Koekemoer, Ofer Lahav, Elinor Medezinski, Leonidas Moustakas, Piero Rosati, Stella Seitz, & Keiichi Umetsu, **ApJ**, 801, 12 (March 2015)
"CLASH: Extreme Emission Line Galaxies and Their Implication on Selection of High Redshift Galaxies"
132. C. Grillo, S. H. Suyu, P. Rosati, A. Mercurio, I. Balestra, E. Munari, M. Nonino, G. B. Caminha, M. Lombardi, G. De Lucia, S. Borgani, R. Gobat, A. Biviano, M. Girardi, K. Umetsu, D. Coe, A. M. Koekemoer, M. Postman, A. Zitrin, A. Halkola, T. Broadhurst, B. Sartoris, V. Presotto, M. Annunziatella, C. Maier, A. Fritz, E. Vanzella, & B. Frye **ApJ**, 800, 38 (February 2015)
"CLASH-VLT: Insights on the Mass Substructures in the Frontier Fields Cluster MACS J0416.1-2403 Through Accurate Strong Lens Modeling"
133. Jose M. Diego, T. Broadhurst, N. Benitez, K. Umetsu, D. Coe, I. Sendra, M. Sereno, L. Izzo, & G. Covone, **MNRAS**, 446, 683 (January 2015)
"A Free-Form Lensing Grid Solution for A1689 with New Multiple Images"
134. M. Meneghetti, E. Rasia, J. Vega, J. Merten, M. Postman, G. Yepes, F. Sembolini, M. Donahue, S. Ettori, K. Umetsu, I. Balestra, M. Bartelmann, N. Benitez, A. Biviano, R. Bouwens, L. Bradley, T. Broadhurst, D. Coe, N. Czakon, M. De Petris, H. Ford, C. Giocoli, S. Gottloeber, C. Grillo, L. Infante, S. Jouvel, D. Kelson, A. Koekemoer, O. Lahav, D. Lemze, E. Medezinski, P. Melchior, A. Mercurio, A. Molino, L. Moscardini, A. Monna, J. Moustakas, L. A. Moustakas, M. Nonino, J. Rhodes, P. Rosati, J. Sayers, S. Seitz, W. Zheng, & A. Zitrin, **ApJ**, 797, 34 (December 2014)
"The MUSIC of CLASH: Predictions on the Concentration-Mass Relation"

135. M. Annunziatella, A. Biviano, A. Mercurio, M. Nonino, P. Rosati, I. Balestra, V. Presotto, M. Girardi, R. Gobat, C. Grillo, D. Kelson, E. Medezinski, M. Postman, M. Scodeggio, M. Brescia, R. Demarco, A. Fritz, A. Koekemoer, D. Lemze, M. Lombardi, B. Sartoris, K. Umetsu, E. Vanzella, L. Bradley, D. Coe, M. Donahue, L. Infante, U. Kuchner, C. Maier, E. Regos, M. Verdugo, & B. Ziegler, **A&A**, 571, 80 (November 2014)
"CLASH-VLT: The Stellar Mass Function and Stellar Mass Density Profile of the $z = 0.44$ Cluster of Galaxies MACS J1206.2-0847"
136. Keiichi Umetsu*, Elinor Medezinski, Mario Nonino, Julian Merten, Marc Postman, Massimo Meneghetti, Megan Donahue, Nicole Czakon, Alberto Molino, Stella Seitz, Daniel Gruen, Doron Lemze, Italo Balestra, Narciso Benitez, Andrea Biviano, Tom Broadhurst, Holland Ford, Claudio Grillo, Anton Koekemoer, Peter Melchior, Amata Mercurio, John Moustakas, Piero Rosati, & Adi Zitrin, **ApJ**, 795, 163 (November 2014)
"CLASH: Weak-lensing Shear-and-Magnification Analysis of 20 Galaxy Clusters"
137. R. J. Bouwens, L. Bradley, A. Zitrin, D. Coe, M. Franx, W. Zheng, R. Smit, O. Host, M. Postman, L. Moustakas, I. Labbabe, M. Carrasco, A. Molino, M. Donahue, D. D. Kelson, M. Meneghetti, S. Jha, N. Benitez, D. Lemze, K. Umetsu, T. Broadhurst, J. Moustakas, P. Rosati, S. Jouvel, M. Bartelmann, H. Ford, G. Graves, C. Grillo, L. Infante, Y. Jimenez-Teja, O. Lahav, D. Maoz, E. Medezinski, P. Melchior, J. Merten, M. Nonino, S. Ogaz, & S. Seitz, **ApJ**, 795, 126 (November 2014)
"A Census of Star-forming Galaxies in the $z \sim 9 - 10$ Universe based on HST+Spitzer Observations over 19 CLASH Clusters: Three Candidate $z \sim 9 - 10$ Galaxies and Improved Constraints on the Star Formation Rate Density at $z \sim 9.2$ "
138. N. Okabe, K. Umetsu, T. Tamura, Y. Fujita, M. Takizawa, Y.-Y. Zhang, K. Matsushita, T. Hamana, Y. Fukazawa, T. Futamase, M. Kawaharada, S. Miyazaki, Y. Mochizuki, K. Nakazawa, T. Ohashi, N. Ota, T. Sasaki, K. Sato, & S. I. Tam, **PASJ**, 66, 99 (October 2014)
"Universal Profiles of the Intracluster Medium from Suzaku X-Ray and Subaru Weak-Lensing Observations"
139. Megan Donahue, G. Mark Voit, Andisheh Mahdavi, Keiichi Umetsu, Stefano Ettori, Julian Merten, Marc Postman, Aaron Hoffer, Alessandro Baldi, Dan Coe, Nicole Czakon, Mattias Bartelmann, Narciso Benitez, Rychard Bouwens, Larry Bradley, Tom Broadhurst, Holland Ford, Fabio Gastaldello, Claudio Grillo, Leopoldo Infante, Stephanie Jouvel, Anton Koekemoer, Daniel Kelson, Ofer Lahav, Doron Lemze, Elinor Medezinski, Peter Melchior, Massimo Meneghetti, Alberto Molino, John Moustakas, Leonidas A. Moustakas, Mario Nonino, Piero Rosati, Jack Sayers, Stella Seitz, Arjen Van der Wel, Wei Zheng, & Adi Zitrin, **ApJ**, 794, 136 (October 2014)
"CLASH-X: A Comparison of Lensing and X-ray Techniques for Measuring the Mass Profiles of Galaxy Clusters"
140. L. D. Bradley, A. Zitrin, D. Coe, R. Bouwens, M. Postman, I. Balestra, C. Grillo, A. Monna, P. Rosati, S. Seitz, O. Host, D. Lemze, J. Moustakas, L. A. Moustakas, X. Shu, W. Zheng, T. Broadhurst, M. Carrasco, S. Jouvel, A. Koekemoer, E. Medezinski, M. Meneghetti, M. Nonino, R. Smit, K. Umetsu, M. Bartelmann, N. Benitez, M. Donahue, H. Ford, L. Infante, Y. Jimenez-Teja, D. Kelson, O. Lahav, D. Maoz, P. Melchior, J. Merten, & A. Molino, **ApJ**, 792, 76 (September 2014)
"CLASH: A Census of Magnified Star-Forming Galaxies at $z \sim 6 - 8$ "
141. V. Presotto, M. Girardi, M. Nonino, A. Mercurio, C. Grillo, P. Rosati, A. Biviano, M. Annunziatella, I. Balestra, W. Cui, B. Sartoris, D. Lemze, B. Ascaso, J. Moustakas, H. Ford, A. Fritz, O. Czoske, S. Ettori, U. Kuchner, M. Lombardi, C. Maier, E. Medezinski, A. Molino, M. Scodeggio, V. Strazzullo, P. Tozzi, B. Ziegler, M. Bartelmann, N. Benitez, L. Bradley, M. Brescia, T. Broadhurst, D. Coe, M. Donahue, R. Gobat, G. Graves, D. Kelson, A. Koekemoer, P. Melchior, M. Meneghetti, J. Merten, L. Moustakas, E. Munari, M. Postman, E. Regos, S. Seitz, K. Umetsu, W. Zheng, & A. Zitrin, **A&A**, 565, 126 (May 2014)
"Intracluster Light Properties in the CLASH-VLT Cluster MACSJ1206.2-0847"
142. C. Grillo, S. H. Suyu, P. Rosati, A. Mercurio, I. Balestra, E. Munari, M. Nonino, G. B. Caminha, M. Lombardi, G. De Lucia, S. Borgani, R. Gobat, A. Biviano, M. Girardi, K. Umetsu, D. Coe, A. M. Koekemoer, M. Postman, A. Zitrin, A. Halkola, T. Broadhurst, B. Sartoris, V. Presotto, M. Annunziatella, C. Maier, A. Fritz, E. Vanzella, & B. Frye, **ApJ**, 786, 11 (April 2014)
"CLASH: Extending Galaxy Strong Lensing to Small Physical Scales with Distant Sources Highly Magnified by Galaxy Cluster Members"
143. Brandon Patel, Curtis McCully, Saurabh W. Jha, Steven A. Rodney, David O. Jones, Or Graur, Julian Merten, Adi Zitrin, Adam G. Riess, Thomas Matheson, Masao Sako, Thomas W.-S. Holoien, Marc Postman, Dan Coe, Matthias Bartelmann, Italo Balestra, Narciso Benitez, Rychard Bouwens, Larry Bradley, Tom Broadhurst, S. Bradley Cenko, Megan Donahue, Alexei V. Filippenko, Holland Ford, Peter Garnavich, Claudio Grillo, Leopoldo Infante, Stephanie Jouvel, Daniel Kelson, Anton Koekemoer, Ofer Lahav, Doron Lemze, Dan Maoz, Elinor Medezinski, Peter Melchior, Massimo Meneghetti, Alberto Molino, John Moustakas, Leonidas A. Moustakas, Mario Nonino, Piero Rosati, Stella Seitz, Louis G. Strolger, Keiichi Umetsu, & Wei Zheng, **ApJ**, 786, 9 (April

2014)

"Three Gravitationally Lensed Supernovae Behind CLASH Galaxy Clusters

144. R. Smit, R. J. Bouwens, I. Labbe, W. Zheng, L. Bradley, M. Donahue, D. Lemze, J. Moustakas, K. Umetsu, A. Zitrin, D. Coe, M. Postman, V. Gonzalez, M. Bartelmann, N. Benitez, T. Broadhurst, H. Ford, C. Grillo, L. Infante, S. Jha, Y. Jimenez-Teja, S. Jouvel, D. D. Kelson, O. Lahav, D. Maoz, E. Medezinski, P. Melchior, M. Meneghetti, J. Merten, A. Molino, L. Moustakas, M. Nonino, A. Riess, S. Rodney, P. Rosati, & S. Seitz, **ApJ**, 784, 58 (March 2014)
"Evidence for Ubiquitous High-EW Nebular Emission in $z \sim 7$ Galaxies: towards a Clean Measurement of the Specific Star Formation Rate using a Sample of Bright, Magnified Galaxies"
145. Barbara Sartoris, Andrea Biviano, Piero Rosati, Stefano Borgani, Keiichi Umetsu, Matthias Bartelmann, Marisa Girardi, Claudio Grillo, Doron Lemze, Adi Zitrin, Italo Balestra, Amata Mercurio, Mario Nonino, Marc Postman, Nicole Czakon, Larry Bradley, Tom Broadhurst, Dan Coe, Elinor Medezinski, Peter Melchior, Massimo Meneghetti, Julian Merten, Marianna Annunziatella, Narciso Benitez, Oliver Czoske, Megan Donahue, Stefano Ettori, Holland Ford, Alexander Fritz, Dan Kelson, Anton Koekemoer, Ulrike Kuchner, Marco Lombardi, Christian Maier, Leonidas A. Moustakas, Emiliano Munari, Valentina Presotto, Marco Scodeggio, Stella Seitz, Paolo Tozzi, Wei Zheng, & Bodo Ziegler, **ApJL**, 783, L11 (March 2014)
"CLASH-VLT: Constraints on the Dark Matter Equation of State from Accurate Measurements of Galaxy Cluster Mass Profiles"
146. S. Jouvel, O. Host, O. Lahav, S. Seitz, A. Molino, L. Moustakas, D. Coe, N. Benitez, P. Rosati, I. Balestra, C. Grillo, L. Bradley, D. Kelson, A. Koekemoer, M. Postman, E. Medezinski, M. Nonino, A. Mercurio, W. Zheng, A. Zitrin, D. Lemze, M. Bartelmann, R. Bouwens, T. Broadhurst, M. Donahue, H. Ford, G. Graves, L. Infante, Y. Jimenez-Teja, R. Lazkoz, P. Melchior, M. Meneghetti, J. Merten, S. Ogaz, & K. Umetsu, **A&A**, 562, 86 (February 2014)
"CLASH: Photometric Redshifts with 16 HST Bands in Galaxy Cluster Field"
147. A. Monna, S. Seitz, N. Greisel, T. Eichner, N. Drory, M. Postman, A. Zitrin, D. Coe, A. Halkola, S. H. Suyu, C. Grillo, P. Rosati, D. Lemze, I. Balestra, J. Snigula, L. Bradley, K. Umetsu, A. Koekemoer, M. Bartelmann, N. Benitez, R. Bouwens, T. Broadhurst, M. Donahue, H. Ford, O. Host, L. Infante, Y. Jimenez-Teja, S. Jouvel, D. Kelson, O. Lahav, E. Medezinski, P. Melchior, M. Meneghetti, J. Merten, A. Molino, J. Moustakas, L. Moustakas, M. Nonino, & W. Zheng, **MNRAS**, 438, 1417 (February 2014)
"CLASH: $z \sim 6$ Young Galaxy Candidate Quintuply Lensed by the Frontier Field Cluster RXC J2248.7-4431"
148. I. Balestra, E. Vanzella, P. Rosati, A. Monna, C. Grillo, M. Nonino, A. Mercurio, A. Biviano, L. Bradley, D. Coe, A. Fritz, M. Postman, S. Seitz, M. Scodeggio, P. Tozzi, W. Zheng, B. Ziegler, A. Zitrin, M. Annunziatella, M. Bartelmann, N. Benitez, T. Broadhurst, R. Bouwens, O. Czoske, M. Donahue, H. Ford, M. Girardi, L. Infante, S. Jouvel, D. Kelson, A. Koekemoer, U. Kuchner, D. Lemze, M. Lombardi, C. Maier, E. Medezinski, P. Melchior, M. Meneghetti, J. Merten, A. Molino, L. Moustakas, V. Presotto, R. Smit, & K. Umetsu, **A&A**, 559, L9 (November 2013)
"CLASH-VLT: Spectroscopic Confirmation of a $z = 6.11$ Quintuply Lensed Galaxy in the Frontier Fields Cluster RXC J2248.7-4431"
149. J. Sayers, T. Mroczkowski, M. Zemcov, P. M. Korngut, J. Bock, E. Bulbul, N. G. Czakon, E. Egami, S. R. Golwala, P. M. Koch, K.-Y. Lin, A. Mantz, S. M. Molnar, L. Moustakas, E. Pierpaoli, T. D. Rawle, E. D. Reese, M. Rex, J. A. Shitanishi, S. Siegel, & K. Umetsu, **ApJ**, 778, 52 (November 2013)
"A Measurement of the Kinetic Sunyaev-Zel'dovich Signal toward MACS J0717.5+3745"
150. Elinor Medezinski, Keiichi Umetsu, Mario Nonino, Julian Merten, Adi Zitrin, Tom Broadhurst, Megan Donahue, Jack Sayers, Jean-Claude Waizmann, Anton Koekemoer, Dan Coe, Alberto Molino, Peter Melchior, Tony Mroczkowski, Nicole Czakon, Marc Postman, Massimo Meneghetti, Doron Lemze, Holland Ford, Claudio Grillo, Daniel Kelson, Larry Bradley, John Moustakas, Matthias Bartelmann, Narciso Benitez, Andrea Biviano, Rychard Bouwens, Sunil Golwala, Genevieve Graves, Leopoldo Infante, Yolanda Jimenez-Teja, Stephanie Jouvel, Ofer Lahav, Leonidas Moustakas, Sara Ogaz, Piero Rosati, Stella Seitz, & Wei Zheng, **ApJ**, 777, 43 (November 2013)
"CLASH: Complete Lensing Analysis of the Largest Cosmic Lens MACS J0717.5+3745 and Surrounding Structures"
151. Doron Lemze, Marc Postman, Shy Genel, Holland C. Ford, Italo Balestra, Megan Donahue, Daniel Kelson, Mario Nonino, Amata Mercurio, Andrea Biviano, Piero Rosati, Keiichi Umetsu, David Sand, Anton Koekemoer, Massimo Meneghetti, Peter Melchior, Andrew B. Newman, Waqas A. Bhatti, G. Mark Voit, Elinor Medezinski, Adi Zitrin, Wei Zheng, Tom Broadhurst, Matthias Bartelmann, Narciso Benitez, Rychard Bouwens, Larry Bradley, Dan Coe, Genevieve Graves, Claudio Grillo, Leopoldo Infante, Yolanda Jimenez-Teja, Stephanie Jouvel, Ofer Lahav, Dan Maoz, Julian Merten, Alberto Molino, John Moustakas, Leonidas Moustakas, Sara

Ogaz, Marco Scodeggio, & Stella Seitz, **ApJ**, 776, 91 (October 2013)

"The Contribution of Halos with Different Mass Ratios to the Overall Growth of Cluster-sized Halos"

152. A. Biviano, P. Rosati, I. Balestra, A. Mercurio, M. Girardi, M. Nonino, C. Grillo, M. Scodeggio, D. Lemze, D. Kelson, K. Umetsu, M. Postman, A. Zitrin, O. Czoske, S. Ettori, M. Lombardi, E. Medezinski, S. Mei, V. Presotto, P. Tozzi, B. Ziegler, M. Annunziatella, M. Bartelmann, N. Benitez, L. Bradley, M. Brescia, T. Broadhurst, D. Coe, R. Demarco, M. Donahue, H. Ford, R. Gobat, G. Graves, A. Koekemoer, U. Kuchner, C. Maier, P. Melchior, M. Meneghetti, J. Merten, L. Moustakas, E. Munari, E. Regos, B. Sartoris, S. Seitz, & W. Zheng, **A&A**, 558, 1 (October 2013)
"CLASH: The Mass, Velocity-anisotropy, and Pseudo-phase-space Density Profiles of the $z = 0.44$ Galaxy Cluster MACS J1206-0847"
153. Thomas Eichner, Stella Seitz, Sherry H. Suyu, Aleks Halkola, Keiichi Umetsu, Adi Zitrin, Dan Coe, Anna Monna, Piero Rosati, Claudio Grillo, Italo Balestra, Marc Postman, Anton Koekemoer, Wei Zheng, Ole Host, Doron Lemze, Tom Broadhurst, Leonidas Moustakas, Holland Ford, Larry Bradley, Alberto Molino, Matthias Bartelmann, Narciso Benitez, Rychard Bouwens, Megan Donahue, Leopoldo Infante, Stephanie Jouvel, Daniel Kelson, Ofer Lahav, Elinor Medezinski, Peter Melchior, Julian Merten, Mario Nonino, & Adam Riess, **ApJ**, 774, 124 (September 2013)
"Galaxy Halo Truncation and Giant Arc Surface Brightness Reconstruction in the Cluster MACSJ1206.2-0847"
154. Sandor M. Molnar, Tom Broadhurst, Keiichi Umetsu, Adi Zitrin, Yoel Rephaeli, & Meir Shimon, **ApJ**, 774, 70 (September 2013)
"Tangential Velocity of the Dark Matter in the Bullet Cluster from Precise Lensed Image Redshifts"
155. Jean Coupon*, Tom Broadhurst, & Keiichi Umetsu, **ApJ**, 772, 65 (July 2013)
"Cluster Lensing Profiles Derived from a Redshift Enhancement of Magnified BOSS-Survey Galaxies"
156. Nobuhiro Okabe*, Graham P. Smith, Keiichi Umetsu, Masahiro Takada, & Toshifumi Futamase, **ApJL**, 769, L35 (May 2013)
"LoCuSS: The Mass Density Profile of Massive Galaxy Clusters at $z = 0.2$ "
157. Yu-Wei Liao, Kai-Yang Lin, Yau-De Huang, Jiun-Huei Proty Wu, Paul T. P. Ho, Ming-Tang Chen, Chih-Wei Locutus Huang, Patrick M. Koch, Hiroaki Nishioka, Tai-An Cheng, Szu-Yuan Fu, Guo-Chin Liu, Sandor M. Molnar, Keiichi Umetsu, Fu-Cheng Wang, Yu-Yen Chang, Chih-Chiang Han, Chao-Te Li, Pierre Martin-Cocher, & Peter Oshiro, **ApJ**, 769, 71, (May 2013)
"Platform Deformation Phase Correction for the AMiBA-13 Co-planar Interferometer"
158. Keiichi Umetsu*, **ApJ**, 769, 13 (May 2013)
"Model-free Multi-probe Lensing Reconstruction of Cluster Mass Profiles"
159. J. Sayers, N. G. Czakon, A. Mantz, S. R. Golwala, S. Ameglio, T. P. Downes, P. M. Koch, K.-Y. Lin, B. J. Maughan, S. M. Molnar, L. Moustakas, T. Mroczkowski, E. Pierpaoli, J. A. Shitanishi, S. Siegel, K. Umetsu, & N. Van der Pyl, **ApJ**, 768, 177 (May 2013)
"Sunyaev-Zel'dovich-measured Pressure Profiles from the Bolocam X-ray/SZ Galaxy Cluster Sample"
160. M. Sereno, K. Umetsu, S. Ettori, & A. Baldi, **Astronomische Nachrichten**, 334, 445 (April 2013)
"On Mass and Shape of Galaxy Clusters by Comparison of X-Ray, Sunyaev-Zel'dovich Effect, and Gravitational Lensing Observations"
161. Kazuya Ichikawa, Kyoko Matsushita, Nobuhiro Okabe, Kosuke Sato, Y.-Y. Zhang, A. Finoguenov, Yutaka Fujita, Yasushi Fukazawa, Madoka Kawaharada, Kazuhiro Nakazawa, Takaya Ohashi, Naomi Ota, Motokazu Takizawa, Takayuki Tamura, & Keiichi Umetsu, **ApJ**, 766, 90 (April 2013)
"Suzaku Observations of Abell 1835 Outskirts: Deviation from Hydrostatic Equilibrium"
162. J. Sayers, T. Mroczkowski, N. G. Czakon, S. R. Golwala, A. Mantz, S. Ameglio, T. P. Downes, P. M. Koch, K.-Y. Lin, S. M. Molnar, S. J. C. Muchovej, E. Pierpaoli, J. A. Shitanishi, S. Siegel, & K. Umetsu, **ApJ**, 764, 152 (February 2013)
"The Contribution of Radio Galaxy Contamination to Measurements of the Sunyaev-Zel'dovich Decrement in Massive Galaxy Clusters at 140 GHz with Bolocam"
163. A. Zitrin, M. Meneghetti, K. Umetsu, T. Broadhurst, M. Bartelmann, L. Bradley, M. Carrasco, D. Coe, H. Ford, D. Kelson, A. Koekemoer, E. Medezinski, L. A. Moustakas, M. Nonino, M. Postman, P. Rosati, G. Seidel, I. Sendra, X. Shu, J. Vega, & W. Zheng, **ApJL**, 762, L30, January 2013
"CLASH: the Enhanced Lensing Efficiency of the Highly Elongated Merging Cluster MACS J0416.1-2403"
164. Elisabeth Krause, Tzu-Ching Chang, Olivier Dore, & Keiichi Umetsu, **ApJL**, 762, L20 (January 2013)
"The Weight of Emptiness: The Gravitational Lensing Signal of Stacked Voids"

165. Mauro Sereno, Stefano Ettori, Keiichi Umetsu, & Alessandro Baldi, **MNRAS**, 428, 2241 (January 2013)
"Mass, Shape and Thermal Properties of A1689 by a Multi-wavelength X-ray, Lensing and Sunyaev-Zel'dovich Analysis"
166. Tony Mroczkowski, Simon Dicker, Jack Sayers, Erik D. Reese, Brian Mason, Nicole Czakon, Charles Romero6, Alexander Young, Mark Devlin, Sunil Golwala, Phillip Korngut, Craig Sarazin, James Bock, Patrick M. Koch, Kai-Yang Lin, Sandor M. Molnar, Keiichi Umetsu, & Michael Zemcov, **ApJ**, 761, 47 (December 2012)
"A Multi-wavelength Study of the Sunyaev-Zel'dovich Effect in the Triple-merger Cluster MACS J0717.5+3745 with MUSTANG and BOLOCAM"
167. Adi Zitrin, Matthias Bartelmann, Keiichi Umetsu, Masamune Oguri, & Tom Broadhurst, **MNRAS**, 426, 2944-2956 (November 2012)
"Miscentring in Galaxy Clusters: Dark Matter to Brightest Cluster Galaxy Offsets in 10,000 SDSS Clusters"
168. Wei Zheng, Marc Postman, Adi Zitrin, John Moustakas, Xinwen Shu, Stephanie Jouvel, Ole Host, Alberto Molino, Larry Bradley, Dan Coe, Leonidas A. Moustakas, Mauricio Carrasco, Holland Ford, Narciso Benitez, Tod R. Lauer, Stella Seitz, Rychard Bouwens, Anton Koekemoer, Elinor Medezinski, Matthias Bartelmann, Tom Broadhurst, Megan Donahue, Claudio Grillo, Leopoldo Infante, Saurabh Jha, Daniel D. Kelson, Ofer Lahav, Doron Lemze, Peter Melchior, Massimo Meneghetti, Julian Merten, Mario Nonino, Sara Ogaz, Piero Rosati, Keiichi Umetsu, & Arjen van der Wel, **Nature**, 489, 406-408 (September 2012)
"A Magnified Young Galaxy from about 500 Million Years after the Big Bang"
169. Dan Coe, Keiichi Umetsu, Adi Zitrin, Megan Donahue, Elinor Medezinski, Marc Postman, Mauricio Carrasco, Timo Anguita, Margaret J. Geller, Kenneth J. Rines, Antonaldo Diaferio, Michael J. Kurtz, Larry Bradley, Anton Koekemoer, Wei Zheng, Mario Nonino, Alberto Molino, Andisheh Mahdavi, Doron Lemze, Leopoldo Infante, Sara Ogaz, Peter Melchior, Ole Host, Holland Ford, Claudio Grillo, Piero Rosati, Yolanda Jimenez-Teja, John Moustakas, Tom Broadhurst, Begoa Ascaso, Ofer Lahav, Matthias Bartelmann, Narciso Benitez, Rychard Bouwens, Or Graur, Genevieve Graves, Saurabh Jha, Stephanie Jouvel, Daniel Kelson, Leonidas Moustakas, Dan Maoz, Massimo Meneghetti, Julian Merten, Adam Riess, Steve Rodney, & Stella Seitz, **ApJ**, 757, 22 (September 2012)
"CLASH: Precise New Constraints on the Mass Profile of Abell 2261"
170. Hitoshi Hanami, Tsuyoshi Ishigaki, Naofumi Fujishiro, Kouichiro Nakanishi, Takamitsu Miyaji, Mirko Krumpel, Keiichi Umetsu, Youichi Ohyama, Hyun Jin Shim, Myungshin Im, Hyoung Mok Lee, Myung Gyoong Lee, Stephen Serjeant, Glenn J. White, Christopher N. Willmer, Tomotsugu Goto, Shinki Oyabu, Toshinobu Takagi, Takehiko Wada, & Hideo Matsuhara, **PASJ**, 64, 70 (August 2012)
"Star Formation and AGN Activity in Galaxies Classified Using the 1.6 μ m Bump and PAH Features at $z = 0.4 - 2$ "
171. Keiichi Umetsu*, Elinor Medezinski, Mario Nonino, Julian Merten, Adi Zitrin, Alberto Molino, Claudio Grillo, Mauricio Carrasco, Megan Donahue, Andisheh Mahdavi, Dan Coe, Marc Postman, Anton Koekemoer, Nicole Czakon, Jack Sayers, Tony Mroczkowski, Sunil Golwala, Patrick M. Koch, Kai-Yang Lin, Sandor M. Molnar, Piero Rosati, Italo Balestra, Amata Mercurio, Marco Scodeggio, Andrea Biviano, Timo Anguita, Leopoldo Infante, Gregor Seidel, Irene Sendra, Stephanie Jouvel, Ole Host, Doron Lemze, Tom Broadhurst, Massimo Meneghetti, Leonidas Moustakas, Matthias Bartelmann, Narciso Benitez, Rychard Bouwens, Larry Bradley, Holland Ford, Yolanda Jimenez-Teja, Daniel Kelson, Ofer Lahav, Peter Melchior, John Moustakas, Sara Ogaz, Stella Seitz, & Wei Zheng, **ApJ**, 755, 56 (August 2012)
"CLASH: Mass Distribution in and around the Galaxy Cluster MACS J1206.2-0847 from a Full Cluster Lensing Analysis"
172. Adi Zitrin, Tom Broadhurst, Matthias Bartelmann, Yoel Rephaeli, Masamune Oguri, Narciso Benítez, Jiangang Hao, & Keiichi Umetsu, **MNRAS**, 423, 2308-2324 (July 2012)
"The Universal Einstein Radius Distribution from 10,000 SDSS Clusters"
173. J. Sayers, N. G. Czakon, C. Bridge, S. R. Golwala, P. M. Koch, K.-Y. Lin, S. M. Molnar, & Keiichi Umetsu, **ApJL**, 749, L15 (April 2012)
"Bolocam Observations of Two Unconfirmed Galaxy Cluster Candidates from the Planck Early SZ Sample"
174. A. Zitrin, P. Rosati, M. Nonino, C. Grillo, M. Postman, D. Coe, S. Seitz, T. Eichner, T. Broadhurst, S. Jouvel, I. Balestra, A. Mercurio, M. Scodeggio, N. Benitez, L. Bradley, H. Ford, O. Host, Y. Jimenez-Teja, A. Koekemoer, W. Zheng, M. Bartelmann, R. Bouwens, O. Czoske, M. Donahue, O. Graur, G. Graves, L. Infante, S. Jha, D. Kelson, O. Lahav, R. Lazkoz, D. Lemze, M. Lombardi, D. Maoz, C. McCully, E. Medezinski, P. Melchior, M. Meneghetti, J. Merten, A. Molino, L. A. Moustakas, S. Ogaz, B. Patel, E. Regoes, A. Riess, S. Rodney, Keiichi Umetsu, & A. Van der Wel, **ApJ**, 749, 97 (April 2012)
"CLASH: New Multiple Images Constraining the Inner Mass Profile of MACS J1206.2-0847"

175. Marc Postman, Dan Coe, Narciso Benitez, Larry Bradley, Tom Broadhurst, Megan Donahue, Holland Ford, Or Graur, Genevieve Graves, Stephanie Jouvel, Anton Koekemoer, Doron Lemze, Elinor Medezinski, Alberto Molino, Leonidas Moustakas, Sara Ogaz, Adam Riess, Steve Rodney, Piero Rosati, Keiichi Umetsu, Wei Zheng, Adi Zitrin, Matthias Bartelmann, Rychard Bouwens, Nicole Czakon, Ole Host, Leopoldo Infante, Saurabh Jha, Yolanda Jimenez-Teja, Daniel Kelson, Ofer Lahav, Ruth Lazkoz, Dani Maoz, Curtis McCully, Peter Melchior, Massimo Meneghetti, Julian Merten, John Moustakas, Mario Nonino, Brandon Patel, Eniko Regos, Stella Seitz, Jack Sayers, Sunil Golwala, & Arjen Van der Wel, **ApJS**, 199, 25 (April 2012)
"The Cluster Lensing And Supernova Survey with Hubble: An Overview"
176. Adi Zitrin, Yoel Rephaeli, Sharon Sadeh, Elinor Medezinski, Keiichi Umetsu, Jack Sayers, Mario Nonino, Andrea Morandi, Alberto Molino, Nicole Czakon, & Sunil R. Golwala, **MNRAS**, 420, 1621-1629 (February 2012)
"Cluster-Cluster Lensing and the Case of Abell 383"
177. A. Zitrin, T. Broadhurst, D. Coe, K. Umetsu, M. Postman, N. Benitez, M. Meneghetti, E. Medezinski, S. Jouvel, L. Bradley, A. Koekemoer, W. Zheng, H. Ford, J. Merten, D. Kelson, O. Lahav, D. Lemze, A. Molino, M. Nonino, M. Donahue, P. Rosati, A. Van der Wel, M. Bartelmann, R. Bouwens, O. Graur, G. Graves, O. Host, L. Infante, S. Jha, Y. Jimenez-Teja, R. Lazkoz, D. Maoz, C. McCully, P. Melchior, L. A. Moustakas, S. Ogaz, B. Patel, E. Regoes, A. Riess, S. Rodney, & S. Seitz, **ApJ**, 742, 117 (December 2011)
"The Cluster Lensing and Supernova Survey with Hubble (CLASH): Strong-lensing Analysis of A383 from 16-band HST/WFC3/ACS Imaging"
178. Mauro Sereno & Keiichi Umetsu, **MNRAS**, 416, 3187-3200 (October 2011)
"Weak- and Strong-lensing Analyses of the Triaxial matter Distribution of Abell 1689"
179. Andrea Morandi, Marceau Limousin, Yoel Rephaeli, Keiichi Umetsu, Rennan Barkana, Tom Broadhurst, & Haakon Dahle, **MNRAS**, 416, 2567-2573 (October 2011)
"Triaxiality and Non-thermal Gas Pressure in Abell 1689"
180. Keiichi Umetsu*, Tom Broadhurst, Adi Zitrin, Elinor Medezinski, Dan Coe, & Marc Postman, **ApJ**, 738, 41 (September 2011)
"A Precise Cluster Mass Profile Averaged from the Highest Quality Lensing Data"
181. Elinor Medezinski, Tom Broadhurst, Keiichi Umetsu, Narciso Benitez, & Andy Taylor, **MNRAS**, 414, 1840-1850 (July 2011)
"A Weak Lensing Detection of the Cosmological Distance-Redshift Relation behind Three Massive Clusters"
182. Adi Zitrin, Tom Broadhurst, Dan Coe, Jori Liesenborgs, Narciso Benitez, Yoel Rephaeli, Holland Ford, & Keiichi Umetsu, **MNRAS**, 413, 1753-1763 (May 2011)
"Strong-lensing Analysis of MS 1358.4+6245: New Multiple Images and Implications for the Well-resolved $z = 4.92$ Galaxy"
183. Keiichi Umetsu*, Tom Broadhurst, Adi Zitrin, Elinor Medezinski, & Li-Yen Hsu, **ApJ**, 729, 127-142 (March 2011)
"Cluster Mass Profiles from a Bayesian Analysis of Weak Lensing Distortion and Magnification Measurements: Applications to Subaru Data"
184. Patrick M. Koch, Philippe Raffin, Yau-De Huang, Ming-Tang Chen, Chih-Chiang Han, Kai-Yang Lin, Pablo Altamirano, Christophe Granet, Paul T. P.Ho, Chih-Wei L.Huang, Michael Kesteven, Chao-Te Li, Yu-Wei Liao, Guo-Chin Liu, Hiroaki Nishioka, Ching-Long Ong, Peter Oshiro, Keiichi Umetsu, Fu-Cheng Wang, & Jiun-Huei Protty Wu, **PASP**, 123, 198 (February 2011)
"1.2 m Shielded Cassegrain Antenna for Close-Packed Radio Interferometer"
185. S. M. Molnar, I.-N. Chiu, K. Umetsu, P. Chen, N. Hearn, T. Broadhurst, G. Bryan, & C. Shang, **ApJ**, 724, L1-L4 (November 2010)
"Testing Strict Hydrostatic Equilibrium in Abell 1689"
186. Sandor M. Molnar, Keiichi Umetsu, Mark Birkinshaw, Greg Bryan, Zoltan Haiman, Nathan Hearn, Paul T. P. Ho, Chih-Wei L. Huang, Patrick M. Koch, Yu-Wei V. Liao, Kai-Yang Lin, Guo-Chin Liu, Hiroaki Nishioka, Fu-Cheng Wang, & Jiun-Huei P. Wu, **ApJ**, 723, 1272-1285 (November 2010)
"Constraining Intra-Cluster Gas Models with AMBA13"
187. Adi Zitrin, Tom Broadhurst, Keiichi Umetsu, Yoel Rephaeli, Elinor Medezinski, Larry Bradley, Yolanda Jimenez-Teja, Narciso Benitez, Holland Ford, Jori Liesenborgs, Sven De Rijcke, Herwig Dejonghe, & Philippe Bekaert, **MNRAS**, 408, 1916-1927 (November 2010)
"Full Lensing Analysis of Abell 1703: Comparison of Independent Lens-Modelling Techniques"
188. Nobuhiro Okabe*, Yu-Ying Zhang, Alexis Finoguenov, Masahiro Takada, Graham P. Smith, Keiichi Umetsu, & Toshifumi Futamase, **ApJ**, 721, 875-885 (September 2010)

"LoCuSS: Calibrating Mass-Observable Scaling Relations for Cluster Cosmology with Subaru Weak Lensing Observations"

189. Guo-Chin Liu, Mark Birkinshaw, Jiun-Huei Protty Wu, Paul T. P. Ho, Chih-Wei Locutus Huang, Yu-Wei Liao, Kai-Yang Lin, Sandor M. Molnar, Hiroaki Nishioka, Patrick M. Koch, Keiichi Umetsu, Fu-Cheng Wang, Pablo Altamirano, Chia-Hao Chang, Shu-Hao Chang, Su-Wei Chang, Ming-Tang Chen, Chih-Chiang Han, Yau-De Huang, Yuh-Jing Hwang, Homin Jiang, Michael Kesteven, Derek Kubo, Chao-Te Li, Pierre Martin-Cocher, Peter Oshiro, Philippe Raffin, Tashun Wei, & Warwick Wilson, **ApJ**, 720, 608-613 (September 2010)
"Contamination of the Central Sunyaev-Zel'dovich Decrements in AMiBA Galaxy Cluster Observations"
190. Chih-Wei Locutus Huang, Jiun-Huei Protty Wu, Paul T. P. Ho, Patrick M. Koch, Yu-Wei Liao, Kai-Yang Lin, Guo-Chin Liu, Sandor M. Molnar, Hiroaki Nishioka, Keiichi Umetsu, Fu-Cheng Wang, Pablo Altamirano, Mark Birkinshaw, Chia-Hao Chang, Shu-Hao Chang, Su-Wei Chang, Ming-Tang Chen, Tzihong Chiueh, Chih-Chiang Han, Yau-De Huang, Yuh-Jing Hwang, Homin Jiang, Michael Kesteven, Derek Kubo, Chao-Te Li, Pierre Martin-Cocher, Peter Oshiro, Philippe Raffin, Tashun Wei, & Warwick Wilson, **ApJ**, 716, 758-765 (June 2010)
"AMiBA: Scaling Relations between the Integrated Compton-y and X-ray-derived Temperature, Mass, and Luminosity"
191. Chao-Te Li, Derek Y. Kubo, Warwick Wilson, Kai-Yang Lin, Ming-Tang Chen, P. T. P. Ho, Chung-Cheng Chen, Chih-Chiang Han, Peter Oshiro, Pierre Martin-Cocher, Chia-Hao Chang, Shu-Hao Chang, Pablo Altamirano, Homin Jiang, Tzi-Dar Chiueh, Chun-Hsien Lien, Huei Wang, Ray-Ming Wei, Chia-Hsiang Yang, Jeffrey B. Peterson, Su-Wei Chang, Yau-De Huang, Yuh-Jing Hwang, Michael Kesteven, Patrick Koch, Guo-Chin Liu, Hiroaki Nishioka, Keiichi Umetsu, Tashun Wei, & Jiun-Huei Protty Wu, **ApJ**, 716, 746-757 (June 2010)
"AMiBA Wideband Analog Correlator"
192. Nobuhiro Okabe*, Masahiro Takada, Keiichi Umetsu, Toshifumi Futamase, & Graham P. Smith, **PASJ**, 62, 811-870 (June 2010)
"LoCuSS: Subaru Weak Lensing Study of 30 LoCuSS Galaxy Clusters"
193. Elinor Medezinski, Tom Broadhurst, Keiichi Umetsu, Masamune Oguri, Yoel Rephaeli, & Narciso Benítez, **MNRAS**, 405, 257-273 (June 2010)
"Detailed Cluster Mass and Light Profiles of A1703, A370, & RXJ1347-11 from Deep Subaru Imaging"
194. Keiichi Umetsu*, Elinor Medezinski, Tom Broadhurst, Adi Zitrin, Nobuhiro Okabe, Bau-Ching Hsieh, & Sandor M. Molnar **ApJ**, 714, 1470-1496 (May 2010)
"The Mass Structure of the Galaxy Cluster Cl0024+1654 from a Full Lensing Analysis of Subaru and ACS/NIC3 Observations"
195. Madoka Kawaharada, Nobuhiro Okabe, Keiichi Umetsu, Motokazu Takizawa, Kyoko Matsushita, Yasushi Fukazawa, Takashi Hamana, Satoshi Miyazaki, Kazuhiro Nakazawa, & Takaya Ohashi, **ApJ**, 714, 423-441 (May 2010)
"Suzaku Observation of Abell 1689: Anisotropic Temperature and Entropy Distributions Associated with the Large-Scale Structure"
196. Yu-Wei Liao, Jiun-Huei Protty Wu, Paul T. P. Ho, Chih-Wei Locutus Huang, Patrick M. Koch, Kai-Yang Lin, Guo-Chin Liu, Sandor M. Molnar, Hiroaki Nishioka, Keiichi Umetsu, Fu-Cheng Wang, Pablo Altamirano, Mark Birkinshaw, Chia-Hao Chang, Shu-Hao Chang, Su-Wei Chang, Ming-Tang Chen, Tzihong Chiueh, Chih-Chiang Han, Yau-De Huang, Yuh-Jing Hwang, Homin Jiang, Michael Kesteven, Derek Y. Kubo, Chao-Te Li, Pierre Martin-Cocher, Peter Oshiro, Philippe Raffin, Tashun Wei, & Warwick Wilson, **ApJ**, 713, 584-591 (April 2010)
"AMiBA: Sunyaev-Zeldovich Effect Derived Properties and Scaling Relations of Massive Galaxy Clusters"
197. Doron Lemze, Tom Broadhurst, Yoel Rephaeli, Rennan Barkana, & Keiichi Umetsu, **ApJ**, 701, 1336-1346 (August 2009)
"Dynamical Study of A1689 from Wide-Field VLT/VIMOS Spectroscopy: Mass Profile, Concentration Parameter, and Velocity Anisotropy"
198. Adi Zitrin, Tom Broadhurst, Keiichi Umetsu, Dan Coe, Narciso Benitez, Begoa Ascaso, Larry Bradley, Holland Ford, James Jee, Elinor Medezinski, Yoel Rephaeli, & Wei Zheng, **MNRAS**, 396, 1985-2002 (July 2009)
"New Multiply-lensed Galaxies Identified in ACS/NIC3 Observations of Cl0024+1654 using an Improved Mass Model"
199. C. P. Haines, G. P. Smith, E. Egami, N. Okabe, M. Takada, R. S. Ellis, S. Moran, & K. Umetsu, **MNRAS**, 396, 1297-1307 (July 2009)
"LoCuSS: Luminous infrared galaxies in the merging cluster Abell 1758 at $z = 0.28$ "

200. Patrick M. Koch, Michael Kesteven, Hiroaki Nishioka, Homin Jiang, Kai-Yang Lin, Keiichi Umetsu, Yau-De Huang, Philippe Raffin, Ke-Jung Chen, Fabiola Ibanez-Romano, Guillaume Chereau, Chih-Wei Locutus Huang, Ming-Tang Chen, Paul T. P. Ho, Konrad Pausch, Klaus Willmeroth, Pablo Altamirano, Chia-Hao Chang, Shu-Hao Chang, Su-Wei Chang, Chih-Chiang Han, Derek Kubo, Chao-Te Li, Yu-Wei Liao, Guo-Chin Liu, Pierre Martin-Cocher, Peter Oshiro, Fu-Cheng Wang, Ta-Shun Wei, Jiun-Huei Protty Wu, Mark Birkinshaw, Tzihong Chiueh, Katy Lancaster, Kwok Yung Lo, Robert N. Martin, Sandor M. Molnar, Ferdinand Patt, & Bob Romeo, **ApJ**, 694, 1670-1684 (April 2009)
"The AMiBA Hexapod Telescope Mount"
201. Ming-Tang Chen, Chao-Te Li, Yuh-Jing Hwang, Homin Jiang, Pablo Altamirano, Chia-Hao Chang, Shu-Hao Chang, Su-Wei Chang, Tzi-Dar Chiueh, Tah-Hsiung Chu, Chih-Chiang Han, Yau-De Huang, Michael Kesteven, Derek Kubo, Pierre Martin-Cocher, Peter Oshiro, Philippe Raffin, Tashun Wei, Huei Wang, Warwick Wilson, Paul T. P. Ho, Chih-Wei Huang, Patrick Koch, Yu-Wei Liao, Kai-Yang Lin, Guo-Chin Liu, Sandor M. Molnar, Hiroaki Nishioka, Keiichi Umetsu, Fu-Cheng Wang, & Jiun-Huei Protty Wu, **ApJ**, 694, 1664-1669 (April 2009)
"AMiBA: Broadband Heterodyne CMB Interferometry"
202. Keiichi Umetsu*, Mark Birkinshaw, Guo-Chin Liu, Jiun-Huei Protty Wu, Elinor Medezinski, Tom Broadhurst, Doron Lemze, Adi Zitrin, Paul T. P. Ho, Chih-Wei Locutus Huang, Patrick M. Koch, Yu-Wei Liao, Kai-Yang Lin, Sandor M. Molnar, Hiroaki Nishioka, Fu-Cheng Wang, Pablo Altamirano, Chia-Hao Chang, Shu-Hao Chang, Su-Wei Chang, Ming-Tang Chen, Chih-Chiang Han, Yau-De Huang, Yuh-Jing Hwang, Homin Jiang, Michael Kesteven, Derek Y. Kubo, Chao-Te Li, Pierre Martin-Cocher, Peter Oshiro, Philippe Raffin, Tashun Wei, & Warwick Wilson, **ApJ**, 694, 1643-1663 (April 2009)
"Mass and Hot Baryons in Massive Galaxy Clusters from Subaru Weak Lensing and AMiBA Sunyaev-Zel'dovich Effect Observations"
203. Hiroaki Nishioka, Fu-Cheng Wang, Jiun-Huei Protty Wu, Paul T. P. Ho, Chih-Wei Locutus Huang, Patrick M. Koch, Yu-Wei Liao, Kai-Yang Lin, Guo-Chin Liu, Sandor M. Molnar, Keiichi Umetsu, Mark Birkinshaw, Pablo Altamirano, Chia-Hao Chang, Shu-Hao Chang, Su-Wei Chang, Ming-Tang Chen, Chih-Chiang Han, Yau-De Huang, Yuh-Jing Hwang, Homin Jiang, Michael Kesteven, Derek Y. Kubo, Chao-Te Li, Pierre Martin-Cocher, Peter Oshiro, Philippe Raffin, Tashun Wei, & Warwick Wilson, **ApJ**, 694, 1637-1642 (April 2009)
"Tests of AMiBA Data Integrity"
204. Kai-Yang Lin, Chao-Te Li, Paul T. P. Ho, Chih-Wei Locutus Huang, Yu-Wei Liao, Guo-Chin Liu, Patrick M. Koch, Sandor M. Molnar, Hiroaki Nishioka, Keiichi Umetsu, Fu-Cheng Wang, Jiun-Huei Protty Wu, Michael Kesteven, Mark Birkinshaw, Pablo Altamirano, Chia-Hao Chang, Shu-Hao Chang, Su-Wei Chang, Ming-Tang Chen, Pierre Martin-Cocher, Chih-Chiang Han, Yau-De Huang, Yuh-Jing Hwang, Fabiola Ibañez-Roman, Homin Jiang, Derek Y. Kubo, Peter Oshiro, Philippe Raffin, Tashun Wei, Warwick Wilson, Ke-Jung Chen, & Tzihong Chiueh, **ApJ**, 694, 1629-1636 (April 2009)
"AMiBA: System Performance"
205. Jiun-Huei Protty Wu, Paul T. P. Ho, Chih-Wei Locutus Huang, Patrick M. Koch, Yu-Wei Liao, Kai-Yang Lin, Guo-Chin Liu, Sandor M. Molnar, Hiroaki Nishioka, Keiichi Umetsu, Fu-Cheng Wang, Pablo Altamirano, Mark Birkinshaw, Chia-Hao Chang, Shu-Hao Chang, Su-Wei Chang, Ming-Tang Chen, Tzihong Chiueh, Chih-Chiang Han, Yau-De Huang, Yuh-Jing Hwang, Homin Jiang, Michael Kesteven, Derek Y. Kubo, Katy Lancaster, Chao-Te Li, Pierre Martin-Cocher, Peter Oshiro, Philippe Raffin, Tashun Wei, & Warwick Wilson, **ApJ**, 694, 1619-1628 (April 2009)
"Array for Microwave Background Anisotropy: Observations, Data Analysis, and Results for Sunyaev-Zel'dovich Effects"
206. Paul T. P. Ho, Pablo Altamirano, Chia-Hao Chang, Shu-Hao Chang, Su-Wei Chang, Chung-Cheng Chen, Ke-Jung Chen, Ming-Tang Chen, Chih-Chiang Han, West M. Ho, Yau-De Huang, Yuh-Jing Hwang, Fabiola Ibanez-Romano, Homin Jiang, Patrick M. Koch, Derek Y. Kubo, Chao-Te Li, Jeremy Lim, Kai-Yang Lin, Guo-Chin Liu, Kwok-Yung Lo, Cheng-Jiun Ma, Robert N. Martin, Pierre Martin-Cocher, Sandor M. Molnar, Kin-Wang Ng, Hiroaki Nishioka, Kevin E. O'Connell, Peter Oshiro, Ferdinand Patt, Philippe Raffin, Keiichi Umetsu, Tashun Wei, Jiun-Huei Protty Wu, Tzi-Dar Chiueh, Tzihong Chiueh, Tah-Hsiung Chu, Chih-Wei Locutus Huang, W. Y. Pauchy Hwang, Yu-Wei Liao, Chun-Hsien Lien, Fu-Cheng Wang, Huei Wang, Ray-Ming Wei, Chia-Hsiang Yang, Michael Kesteven, Jeff Kingsley, Malcolm M. Sinclair, Warwick Wilson, Mark Birkinshaw, Haida Liang, Katy Lancaster, Chan-Gyung Park, Ue-Li Pen, & Jeffrey B. Peterson, **ApJ**, 694, 1610-1618 (April 2009)
"The Yuan-Tseh Lee Array for Microwave Background Anisotropy"
207. Tom Broadhurst, Keiichi Umetsu, Elinor Medezinski, Masamune Oguri, & Yoel Rephaeli, **ApJL**, 685, L9-L12 (September 2008)
"Comparison of Cluster Lensing Profiles with Lambda CDM Predictions"

208. Keiichi Umetsu* & Tom Broadhurst, **ApJ**, 684, 177-203 (September 2008)
"Combining Lens Distortion and Depletion to Map the Mass Distribution of A1689"
209. Yuki Okura, Keiichi Umetsu*, & Toshifumi Futamase, **ApJ**, 680, 1-16 (June 2008)
"A Method for Weak Lensing Flexion Analysis by the HOLICs Moment Method"
210. Nobuhiro Okabe & Keiichi Umetsu, **PASJ**, 60, 345-375 (April 2008)
"Subaru Weak Lensing Study of Seven Merging Clusters: Distributions of Mass and Baryons"
211. Elinor Medezinski, Tom Broadhurst, Keiichi Umetsu, Dan Coe, Narciso Benitez, Holland Ford, Yoel Rephaeli, Nobuo Arimoto, & Xu Kong, **ApJ**, 663, 717-733 (July 2007)
"Using Weak Lensing Dilution to Improve Measurements of the Luminous and Dark Matter in A1689"
212. Yuki Okura, Keiichi Umetsu*, & Toshifumi Futamase, **ApJ**, 660, 995-1005 (May 2007)
"A New Measure for Weak Lensing Flexion"
213. Keiichi Umetsu*, Masayuki Tanaka, Tadayuki Kodama, Ichi Tanaka, Toshifumi Futamase, Nobunari Kashikawa, & Takako Hoshi, **PASJ**, 57, 877-880 (December 2005)
"Discovery of a Strongly Lensed Galaxy at $z = 3.9$ behind a $z = 0.83$ Galaxy Cluster"
214. Masamune Oguri, Masahiro Takada, Keiichi Umetsu, & Tom Broadhurst, **ApJ**, 632, 841-846 (October 2005)
"Can the Steep Mass Profile of A1689 be Explained by a Triaxial Dark Halo?"
215. Masayuki Tanaka, Tadayuki Kodama, Nobuo Arimoto, Sadanori Okamura, Keiichi Umetsu, Kazuhiro Shimasaku, Ichi Tanaka, & Toru Yamada, **MNRAS**, 362, 268-288 (September 2005)
"The Build-up of the Colour-Magnitude Relation as a Function of Environment"
216. Tadayuki Kodama, Masayuki Tanaka, Takayuki Tamura, Hideki Yahagi, Masahiro Nagashima, Ichi Tanaka, Nobuo Arimoto, Toshifumi Futamase, Masanori Iye, Yoshikazu Karasawa, Nobunari Kashikawa, Wataru Kawasaki, Tetsu Kitayama, Hideo Matsuhara, Fumiaki Nakata, Takaya Ohashi, Kouji Ohta, Takashi Okamoto, Sadanori Okamura, Kazuhiro Shimasaku, Yasushi Suto, Naoyuki Tamura, Keiichi Umetsu, & Toru Yamada, **PASJ**, 57, 309-323 (April 2005)
"Panoramic Views of Cluster-scale Assembly Explored by Subaru Wide-field Imaging"
217. T. Broadhurst, M. Takada, K. Umetsu, X. Kong, N. Arimoto, M. Chiba, & T. Futamase, **ApJL**, 619, L143-L146 (February 2005)
"The Surprisingly Steep Mass Profile of Abell 1689, from a Lensing Analysis of Subaru Images"
218. Chan-Gyung Park, Kin-Wang Ng, Changbom Park, Guo-Chin Liu, & Keiichi Umetsu, **ApJ**, 589, 67-81 (May 2003)
"Observational Strategies of Cosmic Microwave Background Temperature and Polarization Interferometry Experiments"
219. Jun'ichi Sato, Keiichi Umetsu, Toshifumi Futamase & Toru Yamada, **ApJL**, 582, L67-L70 (January 2003)
"The Topology of a Weak Lensing Field in the Neighborhood of MS 1054-03"
220. Makoto Hattori & Keiichi Umetsu, **Earth, Planets and Space**, 53, 689-693 (June 2001)
"Spontaneous Reduction of the Heat Conductivity by a Temperature Gradient-driven Instability in Electron-Ion Plasmas"
221. Keiichi Umetsu* & Toshifumi Futamase, **ApJL**, 539, L5-L8 (August 2000)
"Detection of Dark Matter Concentrations in the Field of Cl 1604+4304 from Weak Lensing Analysis"
222. Makoto Hattori & Keiichi Umetsu, **ApJ**, 533, 84-94 (April 2000)
"A Possible Route to Spontaneous Reduction of the Heat Conductivity by a Temperature Gradient Driven Instability in Electron-Ion Plasmas"
223. K. Umetsu* & M. Hattori, **Advances in Space Research**, 25, 617-620 (February 2000)
"On the Origin of the Metallicity Gradient in Clusters of Galaxies"
224. Keiichi Umetsu*, Masashi Tada, & Toshifumi Futamase, **Progress of Theoretical Physics Supplements**, 133, 53-84 (January 1999)
"Cluster Mass Reconstruction by a Weak Shear Field"

(B) Books and Book Chapters

1. 二間瀬 敏史, 梅津 敬一, 伊藤 洋介, "一般相対論の基礎から学ぶ 重力レンズと重力波天文学", 日本評論社 (March 2025; ISBN: 978-4535787216)
 → Co-authored the advanced graduate textbook in Japanese "Gravitational Lensing and Gravitational Wave Astronomy from the Foundations of General Relativity" (T. Futamase, K. Umetsu, & Y. Ito, March 2025) published by *Nippon Hyoron Sha Co., Ltd.* (est. 1918). Authored Chapter 3 on gravitational lensing, presenting its theoretical foundations and cosmological applications.

(C) Proceedings: Instrumentation

1. K.-Y. Lin, C.-T. Li, J.-H.P. Wu, P.M. Koch, K. Umetsu, G.-C. Liu, H. Nishioka, C.-W. Huang, P. Altamirano, D. Kubo, C.-C. Han, Y.-D. Huang, P. Raffin, Y.-W. Liao, F.-C. Wang, S.-W. Chang, C.-H. Chang, P. Oshiro, S.-H. Chang, H. Jiang, M.-T. Chen, Y.-J. Hwang, K.-Y. Chen, F. Ibanez-Romano, P.T.P. Ho, & W.-Y.P. Hwang, **Proceedings of SPIE**, Vol. 7012, id. 701207, 12 pp. (August 2008)
“*AMiBA First Year Observation*”
2. P.M. Koch, M. Kesteven, Y.-Y. Chang, Y.-D. Huang, P. Raffin, K.-Y. Chen, G. Chereau, M.-T. Chen, P.T.P. Ho, C.-W. Huang, F. Ibanez-Romano, H. Jiang, Y.-W. Liao, K.-Y. Lin, G.-C. Liu, S. Molnar, H. Nishioka, K. Umetsu, F.-C. Wang, J.-H.P. Wu, P. Altamirano, C.-H. Chang, S.-H. Chang, S.-W. Chang, C.-C. Han, D. Kubo, C.-T. Li, P. Martin-Cocher, & P. Oshiro, **Proceedings of SPIE**, Vol. 7018, id. 70181L, 15 pp. (July 2008)
“*Platform Deformation Refined Pointing and Phase Correction for the AMiBA Hexapod Telescope*”
3. Patrick Koch, Philippe A. Raffin, Jiun Huei Protty Wu, Ming Tang Chen, Tzi Hong Chiueh, Paul T P Ho, Chi Wei Huang, Yau De Huang, Yu Wei Liao, Kai Yang Lin, Guo Chin Liu, Hiroaki Nishioka, Ching Long Ong, Keiichi Umetsu, Fu Cheng Wang, Shing Kwong Wong, Jeffrey S Kingsley, Robert N. Martin, & Christophe Granet, **Proceedings of the European Conference on Antennas and Propagation: EuCAP 2006**
“*0.6m Antennae for the AMiBA Interferometer Array*”
4. C.-T. Li, C.-C. Han, M.-T. Chen, Y.-D. Huang, H.-M. Jiang, Y.-J. Hwang, S.-W. Chang, S.-H. Chang, P. Martin-Cocher, C.-H. Chang, C.-C. Chen, W. Wilson, K. Umetsu, K.-Y. Lin, P.M. Koch, G.-C. Liu, H. Nishioka, & P.T.P. Ho, **Proceedings of SPIE**, Vol. 6275, id. 62751I (June 2006)
“*Initial Operation of the Array for Microwave Background Anisotropy: AMiBA*”
5. P. Raffin, P.M. Koch, Y.-D. Huang, C.-H. Chang, J. Chang, M.-T. Chen, K.-Y. Chen, P.T.P. Ho, C.-W. Huang, F. Ibanez-Roman, H.-M. Jiang, M. Kesteven, K.-Y. Lin, G.-C. Liu, H. Nishioka, & K. Umetsu, **Proceedings of SPIE**, Vol. 6273, id. 62731I (June 2006)
“*Progress of the Array for Microwave Background Anisotropy: AMiBA*”

(D) Proceedings: Science

1. Keiichi Umetsu*, Proceedings of the International School of Physics “Enrico Fermi”, Course CLXXII: Astrophysics of Galaxy Clusters (Varenna, Italy, July 2008). Edited by A. Cavaliere and Y. Rephaeli (arXiv:1002.3952)
“*Cluster Weak Gravitational Lensing*”
2. J.-H.P. Wu, T.-H. Chiueh, C.-W. Huang, Y.-W. Liao, F.-C. Wang, P. Altamirano, C.-H. Chang, S.-H. Chang, S.-W. Chang, M.-T. Chen, G. Chereau, C.-C. Han, P.T.P. Ho, Y.-D. Huang, Y.-J. Hwang, H. Jiang, P. Koch, D. Kubo, C.-T. Li, K.-Y. Lin, G.-C. Liu, P. Martin-Cocher, S. Molnar, H. Nishioka, P. Raffin, K. Umetsu, M. Kesteven, W. Wilson, M. Birkinshaw, & K. Lancaster, **Modern Physics Letters A**, 23, pp. 1675-1686 (June 2008)
“*AMiBA: First-Year Results for Sunyaev-Zel'dovich Effect*”
3. Elinor Medezinski, Tom Broadhurst, Keiichi Umetsu, & Dan Coe, **Modern Physics Letters A**, 23, pp. 1521-1528 (June 2008)
“*Using Weak-Lensing Dilution to Measure Light Properties of A1689*”
4. Keiichi Umetsu*, Yuki Okura, & Toshifumi Futamase, **Modern Physics Letters A**, 23, pp. 1506-1513 (June 2008)
“*A Moment Method for Measuring the Higher-Order Weak Gravitational Lensing Effects*”
5. P.T.P. Ho, P. Altamirano, M. Birkinshaw, S.-W. Chang; C.-H. Chang, K.-J. Chen, M.-T. Chen, T.-D. Chiueh, T.-H. Chiueh, T.-H. Chu, C.-C. Han, C.-W. Huang, Y.-D. Huang, W.-Y.P. Hwang, Y.-J. Hwang, H. Jiang, M. Kesteven, P. Koch, D. Kubo, K. Lancaster, C.-T. Li, H. Liang, Y.W. Liao, J. Lim, Y.-S. Lin, K.-Y. Lin, G.-C. Liu, K.Y. Lo, C.-J. Ma, P. Martin-Cocher, R.N. Martin, S. Molnar, K.-W. Ng, H. Nishioka, C.-G. Park, F. Patt, J.B. Peterson, P. Raffin, F. Romano, H. Wang, K. Umetsu, F.-C. Wang, & J.-H.P. Wu, **Modern Physics Letters A**, 23, pp. 1243-1251 (June 2008)
“*The Yuan Tseh Lee AMiBA Project*”
6. K.-Y. Lin, J.-H. P. Wu, K. Umetsu, P. Kock, G.-C. Liu, H. Nishioka, C.-W. Huang, Y.-W. Liao, F.-C. Wang, & P. Ho, **ASP Conference Series**, Vol. 399, p. 384 (October 2008), Proceedings of the Subaru 1st Subaru International Conference: Panoramic Views of Galaxy Formation and Evolution (Hayama, Japan, Dec. 11–16, 2007)
“*AMiBA First SZ Measurements*”
7. K. Umetsu* & N. Okabe, **ASP Conference Series**, Vol. 399, p. 111 (October 2008), Proceedings of the Subaru 1st Subaru International Conference: Panoramic Views of Galaxy Formation and Evolution (Hayama, Japan, December 11–16, 2007)
“*Subaru Weak Lensing Study of Merging Clusters of Galaxies*”

8. Keiichi Umetsu*, Masahiro Takada, & Tom Broadhurst, **Modern Physics Letters A**, 22, pp. 2099-2106 (September 2007)
"Probing the Cluster Mass Distribution using Subaru Weak Lensing Data"
9. N. Okabe & K. Umetsu, ESO Astrophysics Symposia, ISBN-978-3-540-73483-3. Springer-Verlag Berlin Heidelberg, p. 278 (2007), Proceedings of Heating vs. Cooling in Galaxies and Clusters of Galaxies (Garching, Germany, August 6–11, 2006)
"Observational Constraints on the ICM Temperature Enhancement by Cluster Mergers"
10. K. Umetsu*, M. Takada, T. Broadhurst, & X. Kong, **Journal of the Korean Astronomical Society**, Vol. 38, pp. 191-195 (June 2005)
"The Mass Profile of Abell 1689 from a Lensing Analysis of Deep Wide Field Subaru Images"
11. Keiichi Umetsu*, Tzihong Chiueh, Kai-Yang Lin, Jun-Mein Wu, & Yao-Huan Tseng, **Modern Physics Letters A**, 19, pp. 1027-1030 (May 2004)
"Simulation of a Combined SZE and Weak Lensing Cluster Survey for AMiBA Experiment"
12. P.T.P. Ho, M.-T. Chen, T.-D. Chiueh, T.-H. Chieuh, T.-H. Chu, H.-M. Jiang, P. Koch, D. Kubo, C.-T. Li, M. Kesteven, K.-Y. Lin, G.-C. Liu, K.-Y. Lo, C.-J. Ma, R.N. Martin, K.-W. Ng, H. Nishioka, F. Patt, J.B. Peterson, P. Raffin, H. Wang, Y.-J. Hwang, K. Umetsu, & J.-H.P. Wu, **Modern Physics Letters A**, 19, pp. 993-1000 (May 2004)
"The AMiBA Project"
13. K. Umetsu*, New Trends in Theoretical and Observational Cosmology, pp. 369-370 (2002), Proceedings of the 5th RESCEU International Symposium (Tokyo, Japan, November 2001). Edited by K. Sato and T. Shiromizu
"Weak Lensing Study of the Galaxy Cluster MS1054-03"
14. K. Umetsu*, **ASP Conference Series**, Vol. 257, pp. 203-206 (2002), Proceedings of AMiBA 2001: High-z Clusters, Missing Baryons, and CMB Polarization (Taipei, Taiwan, June 2001). Edited by Lin-Wen Chen, Chung-Pei Ma, Kin-Wang Ng, and Ue-Li Pen
"Weak Lensing Analysis of the High Redshift Cluster MS1054-03"
15. K. Umetsu* & T. Futamase, Proceedings of Constructing the Universe with Clusters of Galaxies, IAP 2000 meeting (Paris, France, July 2000). Edited by Florence Durret and Daniel Gerbal
"Detection of Dark Matter Concentrations in the Field of CL 1604+4304 by Weak Lensing"
16. K. Umetsu* & M. Hattori, Broad Band X-ray Spectra of Cosmic Sources, pp. 617-620 (2000), Proceedings of the E1.1 Symposium of COSPAR Scientific Commission E, held during the 32nd COSPAR Scientific Assembly (Nagoya, Japan, July 12–19, 1998). Edited by K. Makishima, L. Piro, and T. Takahashi
"On the Origin of the Metallicity Gradient in Clusters of Galaxies"
17. K. Umetsu*, **Soryushiron Kenkyu** Vol. 98, No. 1, pp. 112-115 (October 1998)
"Cluster Mass Reconstruction by Weak Shear"

(E) Newsletters and Bulletins

1. Keiichi Umetsu*, **Academia Sinica Newsletter**, No. 1686, 6 pages (March 7, 2019)
World of Knowledge: *"Dark Matter Structure in Galaxy Clusters Revealed by Gravitational Lensing"*
2. Keiichi Umetsu*, **Association of Asia Pacific Physical Societies**, Vol. 19, No. 5, pp. 14-16 (October 2009)
"The Yuan-Tseh Lee Array for Microwave Background Anisotropy: AMiBA"
3. Keiichi Umetsu*, **Academia Sinica Newsletter**, No. 83, 3 pages (September 11, 2008)
World of Knowledge: *"Progress of the AMiBA Project"*
4. Keiichi Umetsu*, **The Astronomical Herald**, Vol. 96, No. 7, p. 374 (July 2003)
"AMiBA: Array for Microwave Background Anisotropy"