



Adam Mantz

Physical Science Research Scientist, KIPAC

Bio

BIO

I am a research scientist in the Kavli Institute for Particle Astrophysics and Cosmology (KIPAC) at Stanford University, specifically in the X-ray and Observational Cosmology (XOC) group. My work centers around the formation and growth of clusters of galaxies, observations of the intracluster medium at X-ray and millimeter wavelengths, and the use of clusters as probes of cosmology.

EDUCATION AND CERTIFICATIONS

- Ph.D, Stanford University , Physics (2009)
- B.A., Cornell University , Physics (2004)

LINKS

- X-ray and Observational Cosmology group: <https://xoc.stanford.edu>
- Kavli Institute for Particle Astrophysics and Cosmology: <https://kipac.stanford.edu>
- Personal website: <https://sites.google.com/site/adambmantz/>

Publications

PUBLICATIONS

- **SPT-CL J2215-3537: A Massive Starburst at the Center of the Most Distant Relaxed Galaxy Cluster** *ASTROPHYSICAL JOURNAL*
Calzadilla, M. E., Bleem, L., McDonald, M. D., Gladders, M. B., Mantz, A. W., Allen, S. B., Bayliss, M., Eilers, A., Floyd, B., Hlavacek-Larrondo, J., Khullar, G. J., Kim, K., Mahler, et al
2023; 947 (2)
- **The Concentration-Mass relation of massive, dynamically relaxed galaxy clusters: agreement between observations and Λ CDM simulations** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Darragh-Ford, E., Mantz, A. B., Rasia, E., Allen, S. W., Morris, R., Foster, J., Schmidt, R. W., Wenrich, G.
2023; 521 (1): 790-799
- **The Evolution and Mass Dependence of Galaxy Cluster Pressure Profiles at $0.05 \leq z \leq 0.60$ and $4 \times 10^{14} \text{ M} (\odot) \leq M(500) \leq 30 \times 10^{14} \text{ M} (\odot)$** *ASTROPHYSICAL JOURNAL*
Sayers, J., Mantz, A. B., Rasia, E., Allen, S. W., Cui, W., Golwala, S. R., Morris, R., Wan, J. T.
2023; 944 (2)
- **Chandra measurements of gas homogeneity and turbulence at intermediate radii in the Perseus Cluster** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
de Vries, M., Mantz, A. B., Allen, S. W., Morris, R., Zhuravleva, I., Canning, R. A., Ehlert, S. R., Ogorzalek, A., Simionescu, A., Werner, N.
2023; 518 (2): 2954-2970

- **BASS. XXXVI. Constraining the Local Supermassive Black Hole-Halo Connection with BASS DR2 AGNs** *ASTROPHYSICAL JOURNAL*
Powell, M. C., Allen, S. W., Caglar, T., Cappelluti, N., Harrison, F., Irving, B. E., Koss, M. J., Mantz, A. B., Oh, K., Ricci, C., Shaper, R. J., Stern, D., Trakhtenbrot, et al
2022; 938 (1)
- **X-ray morphology of cluster-mass haloes in self-interacting dark matter** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Shen, X., Brinckmann, T., Rapetti, D., Vogelsberger, M., Mantz, A., Zavala, J., Allen, S. W.
2022; 516 (1): 1302-1319
- **Harnessing artificial intelligence to automate delineation of volumetric breast cancers from magnetic resonance imaging to improve tumor characterization.**
Zhou, R., Kozlov, A., Chen, S., Okamoto, S., Ikeda, D. M., DeMartini, W., Kurian, A. W., Sledge, G. W., Telli, M. L., Lee, K., Mantz, A. B., Itakura, H.
LIPPINCOTT WILLIAMS & WILKINS.2022
- **Measurement of the Relativistic Sunyaev-Zeldovich Correction in RX J1347.5-1145** *ASTROPHYSICAL JOURNAL*
Butler, V. L., Feder, R. M., Daylan, T., Mantz, A. B., Mercado, D., Montana, A., Portillo, S. N., Sayers, J., Vaughan, B. J., Zemcov, M., Zitrin, A.
2022; 932 (1)
- **Radiomic features quantifying pixel-level characteristics of breast tumors from magnetic resonance imaging predict risk factors in triple-negative breast cancer.**
Mantz, A. B., Zhou, R., Kozlov, A., DeMartini, W., Chen, S., Okamoto, S., Ikeda, D. M., Mattonen, S. A., Napel, S., Alkim, E., Sledge, G. W., Kurian, A. W., Liu, et al
LIPPINCOTT WILLIAMS & WILKINS.2022
- **CMB-S4: Forecasting Constraints on Primordial Gravitational Waves** *ASTROPHYSICAL JOURNAL*
Abazajian, K., Addison, G. E., Adshead, P., Ahmed, Z., Akerib, D., Ali, A., Allen, S. W., Alonso, D., Alvarez, M., Amin, M. A., Anderson, A., Arnold, K. S., Ashton, et al
2022; 926 (1)
- **Cosmological constraints from gas mass fractions of massive, relaxed galaxy clusters** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Mantz, A. B., Morris, R., Allen, S. W., Canning, R. A., Baumont, L., Benson, B., Bleem, L. E., Ehlert, S. R., Floyd, B., Herbonnet, R., Kelly, P. L., Liang, S., von Der Linden, et al
2022; 510 (1): 131-145
- **The history of metal enrichment traced by X-ray observations of high-redshift galaxy clusters** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Flores, A. M., Mantz, A. B., Allen, S. W., Morris, R., Canning, R. A., Bleem, L. E., Calzadilla, M. S., Floyd, B. T., McDonald, M., Ruppin, F.
2021; 507 (4): 5195-5204
- **Spectroscopic quantification of projection effects in the SDSS redMaPPer galaxy cluster catalogue** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Myles, J., Gruen, D., Mantz, A. B., Allen, S. W., Morris, R. G., Rykoff, E., Costanzi, M., To, C., DeRose, J., Wechsler, R. H., Rozo, E., Jeltema, T., Carrasco, et al
2021; 505 (1): 33-44
- **Measuring H-0 using X-ray and SZ effect observations of dynamically relaxed galaxy clusters** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Wan, J. T., Mantz, A. B., Sayers, J., Allen, S. W., Morris, R., Golwala, S. R.
2021; 504 (1): 1062-1076
- **Deep XMM-Newton observations of the most distant SPT-SZ galaxy cluster** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Mantz, A. B., Allen, S. W., Morris, R., Canning, R. A., Bayliss, M., Bleem, L. E., Floyd, B. T., McDonald, M.
2020; 496 (2): 1554-64
- **Ellipticity of brightest cluster galaxies as tracer of halo orientation and weak-lensing mass bias** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Herbonnet, R., von der Linden, A., Allen, S. W., Mantz, A. B., Modumudi, P., Morris, R., Kelly, P. L.
2019; 490 (4): 4889-97
- **The Massive and Distant Clusters of WISE Survey. VI. Stellar Mass Fractions of a Sample of High-redshift Infrared-selected Clusters** *ASTROPHYSICAL JOURNAL*

- Decker, B., Brodwin, M., Abdulla, Z., Gonzalez, A. H., Marrone, D. P., O'Donnell, C., Stanford, S. A., Wylezalek, D., Carlstrom, J. E., Eisenhardt, P. M., Mantz, A., Mo, W., Moravec, et al
2019; 878 (1)
- **Coping with selection effects: a Primer on regression with truncated data** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Mantz, A. B.
2019; 485 (4): 4863–72
 - **US Contributions to the Athena Wide Field Imager**
Burrows, D. N., Allen, S., Bautz, M., Bulbul, E., Chattopadhyay, T., Erdley, J., Falcone, A. D., Grant, C. E., Herrmann, S., Hornschemeier, A., Kelly, D., Kennea, J., Kraft, et al
SPIE-INT SOC OPTICAL ENGINEERING.2019
 - **Thermodynamic profiles of galaxy clusters from a joint X-ray/SZ analysis** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Shitanishi, J. A., Pierpaoli, E., Sayers, J., Golwala, S. R., Ameglio, S., Mantz, A. B., Mroczkowski, T. K., Rasia, E., Siegel, S.
2018; 481 (1): 749–92
 - **Gas Perturbations in the Cool Cores of Galaxy Clusters: Effective Equation of State, Velocity Power Spectra, and Turbulent Heating** *ASTROPHYSICAL JOURNAL*
Zhuravleva, I., Allen, S. W., Mantz, A., Werner, N.
2018; 865 (1)
 - **Cold dark energy constraints from the abundance of galaxy clusters** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Heneka, C., Rapetti, D., Cataneo, M., Mantz, A. B., Allen, S. W., von der Linden, A.
2018; 473 (3): 3882–94
 - **The Athena WFI Science Products Module**
Burrows, D. N., Allen, S., Bautz, M., Bulbul, E., Erdley, J., Falcone, A. D., Fort, S., Grant, C. E., Herrmann, S., Kennea, J., Klar, R., Kraft, R., Mantz, et al
SPIE-INT SOC OPTICAL ENGINEERING.2018
 - **Centre-excised X-ray luminosity as an efficient mass proxy for future galaxy cluster surveys** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Mantz, A. B., Allen, S. W., Morris, R., von der Linden, A.
2018; 473 (3): 3072–79
 - **The metallicity of the intracluster medium over cosmic time: further evidence for early enrichment** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Mantz, A. B., Allen, S. W., Morris, R., Simionescu, A., Urban, O., Werner, N., Zhuravleva, I.
2017; 472 (3): 2877–88
 - **Weighing the giants - V. Galaxy cluster scaling relations(vol 463, pg 3582, 2016)** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Mantz, A. B., Allen, S. W., Morris, R., von der Linden, A., Applegate, D. E., Kelly, P. L., Burke, D. L., Donovan, D., Ebeling, H.
2017; 467 (3): 3443–3446
 - **The XXL survey: First results and future** *ASTRONOMISCHE NACHRICHTEN*
Pierre, M., Adami, C., Birkinshaw, M., Chiappetti, L., Ettori, S., Evrard, A., Faccioli, L., Gastaldello, F., Giles, P., Horellou, C., Iovino, A., Koulouridis, E., Lidman, et al
2017; 338 (2-3): 334–341
 - **A series of shocks and edges in Abell 2219** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Canning, R. E., Allen, S. W., APPELEGATE, D. E., Kelly, P. L., Von der Linden, A., Mantz, A., Million, E., Morris, R. G., Russell, H. R.
2017; 464 (3): 2896–2909
 - **Weighing the giants - V. Galaxy cluster scaling relations** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Mantz, A. B., Allen, S. W., Morris, R. G., von der Linden, A., Applegate, D. E., Kelly, P. L., Burke, D. L., Donovan, D., Ebeling, H.
2016; 463 (4): 3582–3603
 - **COSMOLOGICAL CONSTRAINTS FROM GALAXY CLUSTERS IN THE 2500 SQUARE-DEGREE SPT-SZ SURVEY** *ASTROPHYSICAL JOURNAL*
De Haan, T., Benson, B. A., Bleem, L. E., Allen, S. W., APPELEGATE, D. E., Ashby, M. L., Bautz, M., Bayliss, M., Bocquet, S., Brodwin, M., Carlstrom, J. E., Chang, C. L., Chiu, et al
2016; 832 (1)

- **A COMPARISON AND JOINT ANALYSIS OF SUNYAEV-ZEL'DOVICH EFFECT MEASUREMENTS FROM PLANCK AND BOLOCAM FOR A SET OF 47 MASSIVE GALAXY CLUSTERS** *ASTROPHYSICAL JOURNAL*
Sayers, J., Golwala, S. R., Mantz, A. B., Merten, J., Molnar, S. M., Naka, M., Paillet, G., Pierpaoli, E., Siegel, S. R., Wolman, B.
2016; 832 (1)
- **SPT-GMOS: A GEMINI/GMOS-SOUTH SPECTROSCOPIC SURVEY OF GALAXY CLUSTERS IN THE SPT-SZ SURVEY** *ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES*
Bayliss, M. B., Ruel, J., Stubbs, C. W., Allen, S. W., APPLEGATE, D. E., Ashby, M. L., Bautz, M., Benson, B. A., Bleem, L. E., Bocquet, S., Brodwin, M., Capasso, R., Carlstrom, et al
2016; 227 (1)
- **Cosmology and astrophysics from relaxed galaxy clusters - V. Consistency with cold dark matter structure formation** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Mantz, A. B., Allen, S. W., Morris, R. G.
2016; 462 (1): 681-688
- **The XXL Survey I. Scientific motivations - XMM-Newton observing plan - Follow-up observations and simulation programme** *ASTRONOMY & ASTROPHYSICS*
Pierre, M., Pacaud, F., Adami, C., Alis, S., Altieri, B., Baran, N., Benoist, C., Birkinshaw, M., Bongiorno, A., Bremer, M. N., Brusa, M., Butler, A., Ciliegi, et al
2016; 592
- **The XXL Survey XIII. Baryon content of the bright cluster sample** *ASTRONOMY & ASTROPHYSICS*
Eckert, D., Etti, S., Coupon, J., Gastaldello, F., Pierre, M., Melin, J., Le Brun, A. M., McCarthy, I. G., Adami, C., Chiappetti, L., Faccioli, L., Giles, P., Lavoie, et al
2016; 592
- **Cosmology and astrophysics from relaxed galaxy clusters - IV. Robustly calibrating hydrostatic masses with weak lensing** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Applegate, D. E., Mantz, A., Allen, S. W., Von der Linden, A., Morris, R. G., Hilbert, S., Kelly, P. L., Burke, D. L., Ebeling, H., Rapetti, D. A., SCHMIDT, R. W.
2016; 457 (2): 1522-1534
- **A Gibbs sampler for multivariate linear regression** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Mantz, A. B.
2016; 457 (2): 1279-1288
- **Cosmology and astrophysics from relaxed galaxy clusters - III. Thermodynamic profiles and scaling relations** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Mantz, A. B., Allen, S. W., Morris, R. G., SCHMIDT, R. W.
2016; 456 (4): 4020-4039
- **THE MASSIVE AND DISTANT CLUSTERS OF WISE SURVEY: MOO J1142+1527, A 10(15) M-circle dot GALAXY CLUSTER AT z=1.19** *ASTROPHYSICAL JOURNAL LETTERS*
Gonzalez, A. H., Decker, B., Brodwin, M., Eisenhardt, P. R., Marrone, D. P., Stanford, S. A., Stern, D., Wylezalek, D., Aldering, G., Abdulla, Z., Boone, K., Carlstrom, J., Fagrelus, et al
2015; 812 (2)
- **DEEP CHANDRA, HST-COS, AND MEGACAM OBSERVATIONS OF THE PHOENIX CLUSTER: EXTREME STAR FORMATION AND AGN FEEDBACK ON HUNDRED KILOPARSEC SCALES** *ASTROPHYSICAL JOURNAL*
McDonald, M., McNamara, B. R., van Weeren, R. J., Applegate, D. E., Bayliss, M., Bautz, M. W., Benson, B. A., Carlstrom, J. E., Bleem, L. E., Chatzikos, M., Edge, A. C., Fabian, A. C., Garmire, et al
2015; 811 (2)
- **New constraints on f(R) gravity from clusters of galaxies** *PHYSICAL REVIEW D*
Cataneo, M., Rapetti, D., Schmidt, F., Mantz, A. B., Allen, S. W., Applegate, D. E., Kelly, P. L., von der Linden, A., Morris, R. G.
2015; 92 (4)
- **A MEASUREMENT OF GRAVITATIONAL LENSING OF THE COSMIC MICROWAVE BACKGROUND BY GALAXY CLUSTERS USING DATA FROM THE SOUTH POLE TELESCOPE** *ASTROPHYSICAL JOURNAL*
Baxter, E. J., Keisler, R., Dodelson, S., Aird, K. A., Allen, S. W., Ashby, M. L., Bautz, M., Bayliss, M., Benson, B. A., Bleem, L. E., Bocquet, S., Brodwin, M., Carlstrom, et al
2015; 806 (2)

- **THE MASSIVE AND DISTANT CLUSTERS OF WISE SURVEY. III. SUNYAEV-ZEL'DOVICH MASSES OF GALAXY CLUSTERS AT z similar to 1** *ASTROPHYSICAL JOURNAL*
Brodwin, M., GREER, C. H., Leitch, E. M., Stanford, S. A., Gonzalez, A. H., Gettings, D. P., Abdulla, Z., Carlstrom, J. E., Decker, B., Eisenhardt, P. R., Lin, H. W., Mantz, A. B., Marrone, et al
2015; 806 (1)
- **GALAXY CLUSTER SCALING RELATIONS BETWEEN BOLOCAM SUNYAEV-ZEL'DOVICH EFFECT AND CHANDRA X-RAY MEASUREMENTS** *ASTROPHYSICAL JOURNAL*
Czakov, N. G., Sayers, J., Mantz, A., Golwala, S. R., Downes, T. P., Koch, P. M., Lin, K., Molnar, S. M., Moustakas, L. A., Mroczkowski, T., Pierpaoli, E., Shitanishi, J. A., Siegel, et al
2015; 806 (1)
- **Cosmology and astrophysics from relaxed galaxy clusters - I. Sample selection** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Mantz, A. B., Allen, S. W., Morris, R. G., Schmidt, R. W., von der Linden, A., Urban, O.
2015; 449 (1): 199-219
- **GALAXY CLUSTERS DISCOVERED VIA THE SUNYAEV-ZEL'DOVICH EFFECT IN THE 2500-SQUARE-DEGREE SPT-SZ SURVEY** *ASTROPHYSICAL JOURNAL SUPPLEMENT SERIES*
Bleem, L. E., Stalder, B., De Haan, T., Aird, K. A., Allen, S. W., APPLEGATE, D. E., Ashby, M. L., Bautz, M., Bayliss, M., Benson, B. A., Bocquet, S., Brodwin, M., Carlstrom, et al
2015; 216 (2)
- **MEASUREMENT OF GALAXY CLUSTER INTEGRATED COMPTONIZATION AND MASS SCALING RELATIONS WITH THE SOUTH POLE TELESCOPE** *ASTROPHYSICAL JOURNAL*
Saliwanchik, B. R., Montroy, T. E., Aird, K. A., Bayliss, M., Benson, B. A., Bleem, L. E., Bocquet, S., Brodwin, M., Carlstrom, J. E., Chang, C. L., Cho, H. M., Clocchiatti, A., Crawford, et al
2015; 799 (2)
- **X-ray bright active galactic nuclei in massive galaxy clusters - III. New insights into the triggering mechanisms of cluster AGN** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Ehlert, S., Allen, S. W., Brandt, W. N., Canning, R. E., Luo, B., Mantz, A., Morris, R. G., Von der Linden, A., Xue, Y. Q.
2015; 446 (3): 2709-2729
- **Weighing the giants - IV. Cosmology and neutrino mass** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Mantz, A. B., von der Linden, A., Allen, S. W., Applegate, D. E., Kelly, P. L., Morris, R. G., Rapetti, D. A., Schmidt, R. W., Adhikari, S., Allen, M. T., Burchat, P. R., Burke, D. L., Cataneo, et al
2015; 446 (3): 2205-2225
- **THE XXL SURVEY. V. DETECTION OF THE SUNYAEV-ZEL'DOVICH EFFECT OF THE REDSHIFT 1.9 GALAXY CLUSTER XLSSU J021744.1-034536 WITH CARMA** *ASTROPHYSICAL JOURNAL*
Mantz, A. B., Abdulla, Z., Carlstrom, J. E., GREER, C. H., Leitch, E. M., Marrone, D. P., Muchovej, S., Adami, C., Birkinshaw, M., Bremer, M., Clerc, N., Giles, P., Horellou, et al
2014; 794 (2)
- **SPT-CL J2040-4451: AN SZ-SELECTED GALAXY CLUSTER AT $z=1.478$ WITH SIGNIFICANT ONGOING STAR FORMATION** *ASTROPHYSICAL JOURNAL*
Bayliss, M. B., Ashby, M. L., Ruel, J., Brodwin, M., Aird, K. A., Bautz, M. W., Benson, B. A., Bleem, L. E., Bocquet, S., Carlstrom, J. E., Chang, C. L., Cho, H. M., Clocchiatti, et al
2014; 794 (1)
- **THE REDSHIFT EVOLUTION OF THE MEAN TEMPERATURE, PRESSURE, AND ENTROPY PROFILES IN 80 SPT-SELECTED GALAXY CLUSTERS** *ASTROPHYSICAL JOURNAL*
McDonald, M., Benson, B. A., Vikhlinin, A., Aird, K. A., Allen, S. W., Bautz, M., Bayliss, M., Bleem, L. E., Bocquet, S., Brodwin, M., Carlstrom, J. E., Chang, C. L., Cho, et al
2014; 794 (1)
- **Robust weak-lensing mass calibration of Planck galaxy clusters** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
von der Linden, A., Mantz, A., Allen, S. W., Applegate, D. E., Kelly, P. L., Morris, R. G., Wright, A., Allen, M. T., Burchat, P. R., Burke, D. L., Donovan, D., Ebeling, H.
2014; 443 (3): 1973-1978

- **OPTICAL SPECTROSCOPY AND VELOCITY DISPERSIONS OF GALAXY CLUSTERS FROM THE SPT-SZ SURVEY** *ASTROPHYSICAL JOURNAL*
Ruel, J., Bazin, G., Bayliss, M., Brodwin, M., Foley, R. J., Stalder, B., Aird, K. A., Armstrong, R., Ashby, M. L., Bautz, M., Benson, B. A., Bleem, L. E., Bocquet, et al
2014; 792 (1)
- **Cosmology and astrophysics from relaxed galaxy clusters - II. Cosmological constraints** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Mantz, A. B., Allen, S. W., Morris, R. G., Rapetti, D. A., APPLEGATE, D. E., Kelly, P. L., Von der Linden, A., SCHMIDT, R. W.
2014; 440 (3): 2077-2098
- **Constraints on the CMB temperature evolution using multiband measurements of the Sunyaev-Zel'dovich effect with the South Pole Telescope** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Saro, A., Liu, J., Mohr, J. J., Aird, K. A., Ashby, M. L., Bayliss, M., Benson, B. A., Bleem, L. E., Bocquet, S., Brodwin, M., Carlstrom, J. E., Chang, C. L., Chiu, et al
2014; 440 (3): 2610-2615
- **Weighing the Giants - I. Weak-lensing masses for 51 massive galaxy clusters: project overview, data analysis methods and cluster images** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
von der Linden, A., Allen, M. T., Applegate, D. E., Kelly, P. L., Allen, S. W., Ebeling, H., Burchat, P. R., Burke, D. L., Donovan, D., Morris, R. G., Blandford, R., Erben, T., Mantz, et al
2014; 439 (1): 2-27
- **Weighing the Giants - II. Improved calibration of photometry from stellar colours and accurate photometric redshifts** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Kelly, P. L., von der Linden, A., Applegate, D. E., Allen, M. T., Allen, S. W., Burchat, P. R., Burke, D. L., Ebeling, H., Capak, P., Czoske, O., Donovan, D., Mantz, A., Morris, et al
2014; 439 (1): 28-47
- **Weighing the Giants - III. Methods and measurements of accurate galaxy cluster weak-lensing masses** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Applegate, D. E., von der Linden, A., Kelly, P. L., Allen, M. T., Allen, S. W., Burchat, P. R., Burke, D. L., Ebeling, H., Mantz, A., Morris, R. G.
2014; 439 (1): 48-72
- **Azimuthally resolved X-ray spectroscopy to the edge of the Perseus Cluster** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Urban, O., Simionescu, A., Werner, N., Allen, S. W., Ehlert, S., Zhuravleva, I., Morris, R. G., Fabian, A. C., Mantz, A., Nulsen, P. E., Sanders, J. S., Takei, Y.
2014; 437 (4): 3939-3961
- **X-ray bright active galactic nuclei in massive galaxy clusters - II. The fraction of galaxies hosting active nuclei** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Ehlert, S., Von der Linden, A., Allen, S. W., Brandt, W. N., Xue, Y. Q., Luo, B., Mantz, A., Morris, R. G., Applegate, D., Kelly, P.
2014; 437 (2): 1942-1949
- **A MEASUREMENT OF THE KINETIC SUNYAEV-ZEL'DOVICH SIGNAL TOWARD MACS J0717.5+3745** *ASTROPHYSICAL JOURNAL*
Sayers, J., Mroczkowski, T., Zemcov, M., Korngut, P. M., Bock, J., Bulbul, E., Czakon, N. G., Egami, E., Golwala, S. R., Koch, P. M., Lin, K., Mantz, A., Molnar, et al
2013; 778 (1)
- **THERMODYNAMICS OF THE COMA CLUSTER OUTSKIRTS** *ASTROPHYSICAL JOURNAL*
Simionescu, A., Werner, N., Urban, O., Allen, S. W., Fabian, A. C., Mantz, A., Matsushita, K., Nulsen, P. E., Sanders, J. S., Sasaki, T., Sato, T., Takei, Y., Walker, et al
2013; 775 (1)
- **THE GROWTH OF COOL CORES AND EVOLUTION OF COOLING PROPERTIES IN A SAMPLE OF 83 GALAXY CLUSTERS AT $0.3 < z < 1.2$ SELECTED FROM THE SPT-SZ SURVEY** *ASTROPHYSICAL JOURNAL*
McDonald, M., Benson, B. A., Vikhlinin, A., Stalder, B., Bleem, L. E., De Haan, T., Lin, H. W., Aird, K. A., Ashby, M. L., Bautz, M. W., Bayliss, M., Bocquet, S., Brodwin, et al
2013; 774 (1)
- **X-ray cluster constraints on non-Gaussianity** *JOURNAL OF COSMOLOGY AND ASTROPARTICLE PHYSICS*
Shandera, S., Mantz, A., Rapetti, D., Allen, S. W.
2013

- **A combined measurement of cosmic growth and expansion from clusters of galaxies, the CMB and galaxy clustering** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Rapetti, D., Blake, C., Allen, S. W., Mantz, A., Parkinson, D., Beutler, F.
2013; 432 (2): 973-985
- **SUNYAEV-ZEL'DOVICH-MEASURED PRESSURE PROFILES FROM THE BOLOCAM X-RAY/SZ GALAXY CLUSTER SAMPLE** *ASTROPHYSICAL JOURNAL*
Sayers, J., Czakon, N. G., Mantz, A., Golwala, S. R., Ameglio, S., Downes, T. P., Koch, P. M., Lin, K., Maughan, B. J., Molnar, S. M., Moustakas, L., Mroczkowski, T., Pierpaoli, et al
2013; 768 (2)
- **THE CONTRIBUTION OF RADIO GALAXY CONTAMINATION TO MEASUREMENTS OF THE SUNYAEV-ZEL'DOVICH DECREMENT IN MASSIVE GALAXY CLUSTERS AT 140 GHz WITH BOLOCAM** *ASTROPHYSICAL JOURNAL*
Sayers, J., Mroczkowski, T., Czakon, N. G., Golwala, S. R., Mantz, A., Ameglio, S., Downes, T. P., Koch, P. M., Lin, K., Molnar, S. M., Moustakas, L., Muchovej, S. J., Pierpaoli, et al
2013; 764 (2)
- **X-ray bright active galactic nuclei in massive galaxy clusters - I. Number counts and spatial distribution** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Ehlert, S., Allen, S. W., Brandt, W. N., Xue, Y. Q., Luo, B., Von der Linden, A., Mantz, A., Morris, R. G.
2013; 428 (4): 3509-3525
- **COSMOLOGICAL CONSTRAINTS FROM SUNYAEV-ZEL'DOVICH-SELECTED CLUSTERS WITH X-RAY OBSERVATIONS IN THE FIRST 178 deg(2) OF THE SOUTH POLE TELESCOPE SURVEY** *ASTROPHYSICAL JOURNAL*
Benson, B. A., De Haan, T., Dudley, J. P., Reichardt, C. L., Aird, K. A., Andersson, K., Armstrong, R., Ashby, M. L., Bautz, M., Bayliss, M., Bazin, G., Bleem, L. E., Brodwin, et al
2013; 763 (2)
- **GALAXY CLUSTERS DISCOVERED VIA THE SUNYAEV-ZEL'DOVICH EFFECT IN THE FIRST 720 SQUARE DEGREES OF THE SOUTH POLE TELESCOPE SURVEY** *ASTROPHYSICAL JOURNAL*
Reichardt, C. L., Stalder, B., Bleem, L. E., Montroy, T. E., Aird, K. A., Andersson, K., Armstrong, R., Ashby, M. L., Bautz, M., Bayliss, M., Bazin, G., Benson, B. A., Brodwin, et al
2013; 763 (2)
- **SPT-CL J0205-5829: A $z=1.32$ EVOLVED MASSIVE GALAXY CLUSTER IN THE SOUTH POLE TELESCOPE SUNYAEV-ZEL'DOVICH EFFECT SURVEY** *ASTROPHYSICAL JOURNAL*
Stalder, B., Ruel, J., Suhada, R., Brodwin, M., Aird, K. A., Andersson, K., Armstrong, R., Ashby, M. L., Bautz, M., Bayliss, M., Bazin, G., Benson, B. A., Bleem, et al
2013; 763 (2)
- **HIGH-REDSHIFT COOL-CORE GALAXY CLUSTERS DETECTED VIA THE SUNYAEV-ZEL'DOVICH EFFECT IN THE SOUTH POLE TELESCOPE SURVEY** *ASTROPHYSICAL JOURNAL*
Semler, D. R., Suhada, R., Aird, K. A., Ashby, M. L., Bautz, M., Bayliss, M., Bazin, G., Bocquet, S., Benson, B. A., Bleem, L. E., Brodwin, M., Carlstrom, J. E., Chang, et al
2012; 761 (2)
- **WEAK-LENSING MASS MEASUREMENTS OF FIVE GALAXY CLUSTERS IN THE SOUTH POLE TELESCOPE SURVEY USING MAGELLAN/MEGACAM** *ASTROPHYSICAL JOURNAL*
High, F. W., HOEKSTRA, H., Leethochawalit, N., De Haan, T., Abramson, L., Aird, K. A., Armstrong, R., Ashby, M. L., Bautz, M., Bayliss, M., Bazin, G., Benson, B. A., Bleem, et al
2012; 758 (1)
- **LARGE-SCALE MOTIONS IN THE PERSEUS GALAXY CLUSTER** *ASTROPHYSICAL JOURNAL*
Simionescu, A., Werner, N., Urban, O., Allen, S. W., Fabian, A. C., Sanders, J. S., Mantz, A., Nulsen, P. E., Takei, Y.
2012; 757 (2)
- **A massive, cooling-flow-induced starburst in the core of a luminous cluster of galaxies** *NATURE*
McDonald, M., Bayliss, M., Benson, B. A., Foley, R. J., Ruel, J., Sullivan, P., Veilleux, S., Aird, K. A., Ashby, M. L., Bautz, M., Bazin, G., Bleem, L. E., Brodwin, et al
2012; 488 (7411): 349-352

- **Baryons in the outskirts of the X-ray brightest galaxy cluster** *Conference on Exploring the X-ray Universe - Suzaku and Beyond (SUZAKU)*
Simionescu, A., Allen, S. W., Mantz, A., Werner, N., Takei, Y.
AMER INST PHYSICS.2012
- **Baryons at the Edge of the X-ray-Brightest Galaxy Cluster** *SCIENCE*
Simionescu, A., Allen, S. W., Mantz, A., Werner, N., Takei, Y., Morris, R. G., Fabian, A. C., Sanders, J. S., Nulsen, P. E., George, M. R., Taylor, G. B.
2011; 331 (6024): 1576-1579
- **Testing General Relativity on Cosmic Scales with the Observed Abundance of Massive Clusters** *PROGRESS OF THEORETICAL PHYSICS SUPPLEMENT*
Rapetti, D., Allen, S. W., Mantz, A., Ebeling, H.
2011: 179-187
- **Cosmological Parameters from Observations of Galaxy Clusters** *ANNUAL REVIEW OF ASTRONOMY AND ASTROPHYSICS, VOL 49*
Allen, S. W., Evrard, A. E., Mantz, A. B.
2011; 49: 409-470
- **The X-ray brightest clusters of galaxies from the Massive Cluster Survey** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Ebeling, H., Edge, A. C., Mantz, A., Barrett, E., Henry, J. P., Ma, C. J., Van Speybroeck, L.
2010; 407 (1): 83-93
- **The observed growth of massive galaxy clusters - III. Testing general relativity on cosmological scales** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Rapetti, D., Allen, S. W., Mantz, A., Ebeling, H.
2010; 406 (3): 1796-1804
- **The observed growth of massive galaxy clusters - I. Statistical methods and cosmological constraints** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Mantz, A., Allen, S. W., Rapetti, D., Ebeling, H.
2010; 406 (3): 1759-1772
- **The observed growth of massive galaxy clusters - II. X-ray scaling relations** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Mantz, A., Allen, S. W., Ebeling, H., Rapetti, D., Drlica-Wagner, A.
2010; 406 (3): 1773-1795
- **The observed growth of massive galaxy clusters - IV. Robust constraints on neutrino properties** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Mantz, A., Allen, S. W., Rapetti, D.
2010; 406 (3): 1805-1814
- **CONSTRAINING DARK ENERGY AND GRAVITY WITH X-RAY GALAXY CLUSTERS** *7th International Heidelberg Conference on Dark Matter in Astrophysics and Particle Physics (DARK 2009)*
Rapetti, D., Allen, S. W., Mantz, A., Morris, R. G., Ebeling, H., Schmidt, R., Fabian, A. C.
WORLD SCIENTIFIC PUBL CO PTE LTD.2010: 426-439
- **Constraints on modified gravity from the observed X-ray luminosity function of galaxy clusters** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Rapetti, D., Allen, S. W., Mantz, A., Ebeling, H.
2009; 400 (2): 699-704
- **CONSTRAINING GRAVITY AT LARGE SCALES WITH X-RAY GALAXY CLUSTER STUDIES** *Conference on Dark Energy, Dark Matter - Observation, Experiments and Theories*
Rapetti, D., Allen, S. W., Mantz, A., Ebeling, H., Schmidt, R., Morris, R. G., Fabian, A. C.
E D P SCIENCES.2009: 149-151
- **The prospects for constraining dark energy with future X-ray cluster gas mass fraction measurements** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*
Rapetti, D., Allen, S. W., Mantz, A.
2008; 388 (3): 1265-1278
- **New constraints on dark energy from the observed growth of the most X-ray luminous galaxy clusters** *MONTHLY NOTICES OF THE ROYAL ASTRONOMICAL SOCIETY*

Mantz, A., Allen, S. W., Ebeling, H., Rapetti, D.
2008; 387 (3): 1179-1192