

Alastair Sanderson's publication list (2012-03-22)

Published and accepted refereed papers

Hamilton-Morris, V., Smith, G. P., Edge, A. C., Egami, E., Haines, C. P., Marshall, P. J., **Sanderson, A. J. R.**, Targett, T. A., 2012, ApJ, 748, L23; 'A Weak-lensing and Near-infrared Study of A3192: Disassembling a Richness Class 3 Abell Cluster'

DOI: [10.1088/2041-8205/748/2/L23](https://doi.org/10.1088/2041-8205/748/2/L23)

Johnson, R., Finoguenov, A., Ponman, T. J., Rasmussen, J., **Sanderson, A. J. R.**, 2011, MNRAS, 413, 2467–2480 (also [arXiv:1101.3317](https://arxiv.org/abs/1101.3317)); 'Abundance profiles and cool cores in galaxy groups' DOI: [10.1111/j.1365-2966.2011.18317.x](https://doi.org/10.1111/j.1365-2966.2011.18317.x)

Smith, G. P., Khosroshahi, H. G., Dariush, A. **Sanderson, A. J. R.**, Ponman, T. J., Stott, J. P., Haines, C. P., Egami, E., Stark, D. P., 2010, MNRAS, 409, 169–183 (also [arXiv:1007.2196](https://arxiv.org/abs/1007.2196)); 'LoCuSS: Connecting the Dominance and Shape of Brightest Cluster Galaxies with the Assembly History of Massive Clusters' DOI: [10.1111/j.1365-2966.2010.17311.x](https://doi.org/10.1111/j.1365-2966.2010.17311.x)

Smith, G. P., Haines, C. P., Pereira, M. J., Egami, E., Moran, S. M., Hardegree-Ullman, E., Babul, A., Rex, M., Rawle, T. D., Zhang, Y.-Y., Finoguenov, A., Okabe, N., **Sanderson, A. J. R.**, Edge, A. C., Takada, M., 2010, A&A, 518, L18 (also [arXiv:1005.3816](https://arxiv.org/abs/1005.3816)); 'LoCuSS: Probing Galaxy Transformation Physics with Herschel' DOI: [10.1051/0004-6361/201014691](https://doi.org/10.1051/0004-6361/201014691)

Zhang, Y.-Y., Okabe, N., Finoguenov, A., Smith, G. P., Piffaretti, R., Valdarnini, R., Babul, A., Evrard, A. E., Mazzotta, P., **Sanderson, A. J. R.**, Marrone, D. P., 2010, ApJ, 711, 1033–1043 (also [arXiv:1001.0780](https://arxiv.org/abs/1001.0780)); 'LoCuSS: A Comparison of Cluster Mass Measurements from XMM-Newton and Subaru - Testing Deviation from Hydrostatic Equilibrium and Non-Thermal Pressure Support' DOI: [10.1088/0004-637X/711/2/1033](https://doi.org/10.1088/0004-637X/711/2/1033)

Richard, J., Smith, G. P., Kneib, J.-P., Ellis, R. S., **Sanderson, A. J. R.**, Pei, L., Targett, T., Sand, D. J., Swinbank, M., Dannerbauer, H., Mazzotta, P., Limousin, M., Egami, E., Jullo, E., Hamilton-Morris, V., Moran, S., 2010, MNRAS, 404, 325–349 (also [arXiv:0911.3302](https://arxiv.org/abs/0911.3302)); 'LoCuSS: First Results from Strong-lensing Analysis of 20 Massive Galaxy Clusters at $z \approx 0.2$ ' DOI: [10.1111/j.1365-2966.2009.16274.x](https://doi.org/10.1111/j.1365-2966.2009.16274.x)

Finoguenov, A., **Sanderson, A. J. R.**, Mohr, J. J., Bialek, J. J., Evrard, A., 2010, A&A, 509, A85 (also [arXiv:0912.1848](https://arxiv.org/abs/0912.1848)); 'Hydrodynamic simulations of correlation and scatter in galaxy cluster maps' DOI: [10.1051/0004-6361/200911649](https://doi.org/10.1051/0004-6361/200911649)

Sanderson, A. J. R., Ponman, T. J., 2010, MNRAS, 402, 65–72 (also [arXiv:0910.3212](https://arxiv.org/abs/0910.3212)); 'X-ray modelling of galaxy cluster gas and mass profiles' DOI: [10.1111/j.1365-2966.2009.15888.x](https://doi.org/10.1111/j.1365-2966.2009.15888.x)

Haines, C. P., Smith, G. P., Egami, E., Ellis, R. S., Moran, S. M., **Sanderson, A. J. R.**, Merluzzi, P., Busarello, G., Smith, R. J., 2009, ApJ, 704, 126–136 (also [arXiv:0908.3003](https://arxiv.org/abs/0908.3003)); 'LoCuSS: The mid-infrared Butcher-Oemler effect' DOI: [10.1088/0004-637X/704/1/126](https://doi.org/10.1088/0004-637X/704/1/126)

MNRAS = Monthly Notices of the Royal Astronomical Society

ApJ = The Astrophysical Journal

A&A = Astronomy and Astrophysics

DOI = Digital Object Identifier (see www.doi.org)

Papers with arXiv or astro-ph codes are publicly available to download at [arXiv.org](http://arxiv.org)

- Sanderson, A. J. R.**, Edge, A. C. and Smith, G. P., 2009, MNRAS, 398, 1698–1705 (also [arXiv:0906.1808](#)); ‘LoCuSS: the connection between brightest cluster galaxy activity, gas cooling and dynamical disturbance of X-ray cluster cores’
DOI: [10.1111/j.1365-2966.2009.15214.x](#)
- Sanderson, A. J. R.**, O’Sullivan, E., Ponman, T. J., 2009, MNRAS, 395, 764–776 (also [arXiv:0902.1747](#)); ‘A statistically-selected *Chandra* sample of 20 galaxy clusters – II. Gas properties and cool-core/non-cool core bimodality’ DOI: [10.1111/j.1365-2966.2009.14613.x](#)
- Poole, G. P., Babul, A., McCarthy, I. G., **Sanderson, A. J. R.**, Fardal, M. A., 2008, MNRAS, 391, 1163–1175 (also [arXiv:0804.1552](#)); ‘The impact of mergers on relaxed X-ray clusters III. Effects on compact cool cores’ DOI: [10.1111/j.1365-2966.2008.14003.x](#)
- Croston, J. H., Pratt, G. W., Böhringer, H., Arnaud, M., Pointecouteau, E., Ponman, T. J., **Sanderson, A. J. R.**, Temple, R. F., Bower, R. G., Donahue, M., 2008, A&A, 487, 431–443 (also [arXiv:0801.3430](#)); ‘Galaxy-cluster gas-density distributions of the Representative *XMM-Newton* Cluster Structure Survey (REXCESS)’ DOI: [10.1051/0004-6361:20079154](#)
- O’Sullivan, E., **Sanderson, A. J. R.**, Ponman, T. J., 2007, MNRAS, 380, 1409–1421 (also [arXiv:0707.1879](#)); ‘The dark haloes of early-type galaxies in low-density environments: *XMM-Newton* and *Chandra* observations of NGC 57, NGC 7796 and IC 1531’
DOI: [10.1111/j.1365-2966.2007.12229.x](#)
- Russell, P. A., Ponman, T. J., **Sanderson, A. J. R.**, 2007, MNRAS, 378, 1217–1228 (also [astro-ph/0703010](#)); ‘Bayesian modelling of the cool core galaxy group NGC 4325’
DOI: [10.1111/j.1365-2966.2007.11660.x](#)
- Afshordi, N., Lin, Y-T., Nagai, D., **Sanderson, A. J. R.**, 2007, MNRAS, 378, 293–300 (also [astro-ph/0612700](#)); ‘Missing thermal energy of the intracluster medium’
DOI: [10.1111/j.1365-2966.2007.11776.x](#)
- Sanderson, A. J. R.**, Ponman, T. J., O’Sullivan, E. 2006, MNRAS, 372, 1496–1508 (also [astro-ph/0608423](#)); ‘A statistically-selected *Chandra* sample of 20 galaxy clusters - I. Temperature and cooling time profiles’ DOI: [10.1111/j.1365-2966.2006.10956.x](#)
- Sanderson, A. J. R.**, Finoguenov, A., Mohr, J. J., 2005, ApJ, 630, 191–205 (also [astro-ph/0412316](#)); ‘Possible AGN shock heating in the cool core galaxy cluster Abell 478’ DOI: [10.1086/431750](#)
- Afshordi, N., Lin, Y-T., **Sanderson, A. J. R.**, 2005, ApJ, 629, 1–14 (also [astro-ph/0408560](#)); ‘*Wilkinson Microwave Anisotropy Probe* constraints on the intra-cluster medium’
DOI: [10.1086/431274](#)
- Finoguenov, A., Böhringer, H., Osmond, J. P. F., Ponman, T. J., **Sanderson, A. J. R.**, Zhang, Y.-Y., Zimer, M., 2005, Advances in Space Research, 36, 622–625 (also [astro-ph/0505419](#)); ‘Cluster scaling and its redshift evolution from *XMM-Newton*’
DOI: [10.1016/j.asr.2005.04.018](#)
- Sanderson, A. J. R.**, Ponman, T. J., 2003, MNRAS, 345, 1241–1254 (also [astro-ph/0307457](#)); ‘The Birmingham-CfA cluster scaling project - II: mass composition and distribution’
DOI: [10.1046/j.1365-2966.2003.07040.x](#)
- Ponman, T. J., **Sanderson, A. J. R.**, Finoguenov, A., 2003, MNRAS, 343, 331–342 (also [astro-ph/0304048](#)); ‘The Birmingham-CfA cluster scaling project - III: entropy and similarity in galaxy systems’ DOI: [10.1046/j.1365-8711.2003.06677.x](#)
- Sanderson, A. J. R.**, Ponman, T. J., Finoguenov, A., Lloyd-Davies, E. J., Markevitch, M., 2003, MNRAS, 340, 989–1010 (also [astro-ph/0301049](#)); ‘The Birmingham-CfA cluster scaling project - I: gas fraction and the $M - T_X$ relation’ DOI: [10.1046/j.1365-8711.2003.06401.x](#)

Other papers

- O'Hara, T. B., Mohr, J. J., **Sanderson, A. J. R.**, 2007 ([arXiv:0710.5782](#)); 'Evolution of the intracluster medium between $0.2 < z < 1.3$ in a *Chandra* sample of 70 galaxy clusters'
- O'Sullivan, et al., 2007, '[Effects of AGN and Mergers on the Cores of Galaxy Groups](#)', *Heating versus Cooling in Galaxies and Clusters of Galaxies, ESO Astrophysics Symposia*
- Haiman, Z. and 36 coauthors, 2005,
'An X-ray galaxy cluster survey for investigations of dark energy',
White paper submitted to the Dark Energy Task Force ([astro-ph/0507013](#))
- Sanderson, A. J. R.** and Ponman, T. J., 'The X-ray Scaling Properties of Virialized Systems' at *Carnegie Observatories Centennial Symposium. Clusters of Galaxies: Probes of Cosmological Structure and Galaxy Evolution.* (27–31 January 2003) ([astro-ph/0303374](#))

Colloquia and invited talks

- "*Using R for data visualisation in English Language Studies*" at the The English Department of the University of Birmingham, UK, 20th Jan, 2012
- "*Cosmic feedback in galaxy groups and clusters*" at the University of Nottingham, UK, 12th Oct, 2011
- "*Probing cosmic feedback with clusters of galaxies*" at the University of Leeds, UK, 28th Jan, 2011
- "*X-ray mapping of the structure and scaling of galaxy clusters*" at the Institute for Astronomy, University of Edinburgh, UK, 7th Apr, 2010
- "*Deconstructing galaxy clusters with X-ray modelling of the intracluster medium*" at the University of Sussex, UK, 4th Dec, 2009
- "*Cool cores in galaxy clusters: a hot topic*" at the University of Durham, UK, 27th May, 2009
- "*Probing feedback with galaxy clusters: X-ray mapping of the intracluster medium*" at the University of Bristol, UK, 13th Nov, 2008
- "*Heating, cooling and feedback in the intracluster medium*" at the University of Sussex, UK, 26th Oct, 2007
- "*Scaling Properties of Clusters from Chandra*" at the Max-Planck-Institut für extraterrestrische Physik (MPE), Garching, Germany, 26th Oct, 2006
- "*Scaling Properties of the Intracluster Medium and the Effects of Galaxy Feedback*" at the Pontificia Universidad Católica, Santiago, Chile, 27th June, 2006
- "*AGN Shock Heating in the Cool Core Galaxy Cluster Abell 478*" at the Harvard-Smithsonian Center for Astrophysics, Cambridge, Massachusetts, USA, 9th March, 2005

Conference talks

- "Modelling mass profiles in galaxy groups and clusters using X-rays" at *The 13th Nottingham-Birmingham Extragalactic Workshop on 'Dark matter in clusters, groups and galaxies'*, University of Nottingham, UK, 15th September 2011
- "Studying galaxies in the nearby Universe, using R and ggplot2" at *useR! The R User Conference 2011*, Department of Statistics, University of Warwick, UK, 18th August 2011

- “Hot gas in galaxy clusters & cool-core/non-cool core bimodality” at the *Joint European National Astronomy Meeting*, at the University of Hertfordshire, UK, 23rd April 2009
- “X-ray mass analysis of LoCuSS clusters with *Chandra*” at *Workshop on weighing clusters of galaxies*, at the Max-Planck-Institut für extraterrestrische Physik (MPE), Garching, Germany, 30th July 2008
- “X-ray observations of the intracluster medium: implications for semi-analytic models” at *The 11th Birmingham-Nottingham Extragalactic Workshop on ‘Semi-analytic models - are we kidding ourselves?’*, University of Birmingham, UK, 25th June 2008
- “Cool cores in galaxy groups and clusters” at *New Results in X-Ray Astronomy*, University of Leicester, UK, 18th July 2007
- “Chandra analysis of cool core groups and clusters: statistical properties” at *Frauenwoerth cluster workshop*, Frauenwoerth am Chiemsee, Bavaria, Germany, 14th May 2007
- “Hot gas in galaxy groups: observations vs. simulations” at *RAS National Astronomy Meeting 2007*, University of Central Lancashire, UK, 18th April 2007
- “The Scaling Properties of Fossil Galaxy Groups” at *RAS National Astronomy Meeting 2006*, University of Leicester, UK, 5th April 2006
- “Scaling Properties of the Intracluster Medium: Insights from *Chandra*” at *RAS National Astronomy Meeting 2005*, University of Birmingham, UK, April 2005
- “Cluster scaling relations in the local universe and at high z ” at *Workshop on ‘Fundamental Physics from Galaxy Clusters’*, Fermilab Particle Astrophysics Center, Illinois, USA, December 2004
- “*Chandra*/XMM/BIMA observations of A478” at *Japanese-German Ringberg Workshop on ‘X-ray Studies of Galaxy Clusters and Deep X-ray Surveys’*, Ringberg Castle, Bavaria, Germany, May 2004
- “Scaling Relations of Clusters at $z \sim 0.7$ ” at *Workshop on ‘Studies of Dark Energy and Cosmology from X-ray Cluster Surveys’*, Greenbelt, MD, USA, January 2004
- Two talks and invited participation at the *Aspen Center for Physics workshop on ‘Cosmology and Astrophysics with Galaxy Clusters’*, Aspen, CO, USA, May 2003
- “Self-similarity Breaking in Galaxy Clusters” at *Great Lakes Cosmology VII*, University of Michigan, USA, May 2003
- “Baryonic and Non-Baryonic Mass Distribution in Virialized Systems” at *The Fifth Birmingham Extragalactic Workshop on ‘Mapping the Mass’*, University of Birmingham, UK, Aug 2002
- “X-ray Scaling Properties of Hot Gas across a Wide Range of Virialized Systems” at *RAS National Astronomy Meeting 2002*, University of Bristol, UK, April 2002
- “Evidence for Self-Similarity Breaking from Galaxy Feedback” at *The Fourth Birmingham Extragalactic Workshop on ‘The Role of Feedback in Galaxy Evolution’*, University of Birmingham, UK, June 2001