

Dominique André ECKERT

Personal Data

Date of Birth May 23, 1981
Address Max-Planck Institut für Extraterrestrisch Physik (MPE)
Giessenbachstrasse 1, 85748 Garching
Nationality Swiss
Phone Number +49 893 0000 3649
E-mail deckert@mpe.mpg.de
Web Site <http://www.isdc.unige.ch/~deckert>
ORCID ID 0000-0001-7917-3892

Experience

July 2017 - Senior Researcher, MPE, Garching bei München, Germany
Sept 2015 - June 2017 Scientific collaborator at ASTRO-H ESSC, University of Geneva, CH
Sept 2011 - Aug 2015 Postdoc, Department of Astronomy, University of Geneva, CH
Aug 2009 - Aug 2011 “Occhialini” Fellow, INAF/IASF-Milano, Italy
Sept 2008 - Jun 2009 Postdoc, Department of Astronomy, University of Geneva, CH
Sept 2004 - Aug 2008 PhD candidate, ISDC Data Centre for Astrophysics, Geneva, CH

Formation

Sept 30, 2008 PhD thesis, “*The INTEGRAL view of galaxy clusters*”, under the supervision of Prof. Thierry Courvoisier
Apr 2008 Master of Advanced Studies in Astronomy and Astrophysics, University of Geneva
May 2004 Master of Sciences, Physics, in theoretical cosmology under the supervision of Prof. Ruth Durrer
Sept 1999 - May 2004 Under-graduate studies in theoretical physics, University of Geneva

Publications

85 publications 62 refereed (including 6 Letters and 1 *Nature*)
16 first-author refereed (including 1 Letter and 1 in *Nature*)
7 conference proceedings
14 ATels and 1 GCN
See the full list below

Citations > 1,500
h-index 25 (11 as 1st author)
Research Gate score 36.50

Research Interests

Galaxy Clusters, X-ray surveys, High-energy Astrophysics, Cosmology

Accepted Observing Proposals

XMM: AO-9: 70ks ; AO-10: 2x53ks ; AO-11: **248ks (PI)** , 90ks ; AO-12: **31ks (PI)**, 43 ks ; AO-13: **1209 ks (VLP, PI)**, 106ks, 163ks, 128ks ; AO-14: **206ks (PI)**, 1378ks (VLP), 200ks, 86ks
Chandra: AO-12: 100ks , 20s ; AO-14: 30s ; AO-15: 180ks , 51ks ; AO-16: **200ks (PI)** ; AO-18: 200ks

Suzaku: AO-6: 140ks ; AO-7: **160 ks (PI)**

INTEGRAL: AO-6: 1Ms ; AO-7: **1Ms (PI)** ; AO-11: **1Ms (PI)**

co-I of the **BUFFALO** HST treasury program (<http://buffalo.ipac.caltech.edu/>)

Successful proposals as co-I on **GMRT, Swift, HST, ESO, LOFAR, TNG and VLA**

Presentations at Scientific Conferences

2008: Japan-CH meeting, Tokyo ; SSAA assembly, Zurich ; 7th INTEGRAL workshop, Copenhagen

2009: Seminar, MPE Garching

2010: Non-thermal phenomena in galaxy clusters, Nice

2011: The X-ray Universe 2011, Berlin ; Seminar, Brera Observatory ; Seminar, Geneva Observatory

2012: Galaxy clusters as cosmic laboratories, Madrid ; XXL collaboration meeting, Meudon ; 50 years of X-ray astronomy, Mykonos

2013: Sloshing through the Dolomites, Sesto (Invited) ; The mass profiles of galaxy clusters, M.d.Campiglio (Invited) ; 47th ESLAB symposium, ESA-ESTEC

2014: The X-ray Universe 2014, Dublin ; Cosmology with galaxy clusters, Madrid

2015: SnowCluster 2015, Salt Lake City ; Seminar, Bologna Observatory ; IAU General assembly 2015, FM22, Honolulu (Invited) ; Exploring the Hot and Energetic Universe, Madrid (Invited); Clusters of galaxies and hot baryons, MSSL (Invited)

2016: XMM-Newton: The Next Decade, Madrid (Invited); EWASS 2016 Symposium S6 (co-organizer), Symposium S10 (speaker); SSAA assembly, Davos (Invited).

2017: Physics of the ICM, Beijing (Invited); the X-ray Universe 2017, Rome (Invited); Galaxy Clusters across cosmic time, Aix-en-Provence (Review); Early stages of Galaxy Cluster Formation, ESO, Garching (Review); Cosmic Mergers, Birmingham (Invited)

Collaborations

<i>2017-</i>	German eROSITA consortium member Advanced Telescope for High-ENergy Astrophysics (ATHENA),
<i>2014-</i>	chair of Science Working Group 1.2 (The Astrophysics of galaxy clusters and groups)
<i>2016-</i>	X-ray Integral Field Unit (X-IFU) consortium member
<i>2015-2016</i>	ASTRO-H/Hitomi associate member
<i>2012-</i>	Associate researcher at IASF Milano, Italy
<i>2011-</i>	XXL collaboration member (The ultimate <i>XMM</i> extragalactic survey)
<i>2005-08</i>	INTERNational Gammay-RAY Laboratory (<i>INTEGRAL</i>) consortium member

Peer Review

XMM-Newton Observing Time Allocation Committee (OTAC) member (2014-2015)
Chandra Observing Time Allocation Committee (OTAC) member (2016)
Referee for A&A, ApJ, MNRAS, Nature Astronomy, Ap&SS
Associate Editor for Frontiers in Astrophysics and Space Sciences

Awards, Fellowships, Grants

Vacheron Constantin award for the best thesis at University of Geneva, Nov 2009
“Occhialini” fellowship, IASF Milano, 2009
AHEAD visitor grant, 2016
Marie Skłodowska-Curie grant “AstroFit2” (declined), 2016

PhD/MSc supervision and Teaching

<i>2014</i>	Co-advisor for the Ph.D. thesis of C. Tchernin
<i>2013</i>	Co-advisor for the Master thesis of U. Conod
<i>2005-2008</i>	
<i>2012-present</i>	Supervision of undergraduate practical works (TP), UniGE
<i>2005-2006</i>	Lecturer for the “Mathematical programming” undergraduate lecture, UniGE
<i>2006-2008</i>	Assistant for the “High-energy astrophysics” graduate lecture, UniGE

Miscellaneous

<i>2005</i>	ESA press release on the fastest millisecond pulsar
<i>2008</i>	ESA press release on the Ophiuchus cluster
<i>2013</i>	UniGE press release on galaxy cluster outskirts
<i>2015</i>	ESA press release on the Frontier Fields cluster MACS J0416
<i>2015</i>	Nature paper and ESA press release on Abell 2744
<i>2016</i>	ESO and ESA press release on the first results of the XXL survey

	Conferences for public outreach:
<i>Jun 2006</i>	in Geneva, “ <i>Les pulsars: les horloges de l’Univers</i> ”
<i>Mar 2009</i>	in Marvilliers, “ <i>Les plus grandes structures de l’Univers</i> ”
<i>Jun 2014</i>	in Geneva, “ <i>Les trous noirs</i> ”
<i>Nov 2014</i>	in Fribourg, “ <i>La formation des structures dans l’Univers</i> ”

<i>2001</i>	6-weeks internship at Lombard, Odier & Cie as a financial analyst
-------------	---

List of publications

Highlighted publications

1. Eckert, D., Vazza, F., Ettori, S., Molendi, S., et al. 2012, *The gas distribution in the outer regions of galaxy clusters*, A&A 541, 57
 - The standard reference on the distribution of hot gas in galaxy clusters.
2. Eckert, D., Molendi, S., Vazza, F., Ettori, S., Paltani, S. 2013, *The X-ray/SZ view of the virial region. I. Thermodynamic properties*, A&A 551, 22
 - The combination of X-ray and Sunyaev-Zeldovich data probes for the first time the properties of the hot gas at the virial radius of galaxy clusters.
3. Eckert, D., Jauzac, M., Shan, H.Y., Kneib, J.-P., et al. 2015, *Warm-hot baryons comprise 5-10% of filaments in the cosmic web*, Nature 528, 105
 - Unambiguous discovery of hot gas associated with the filaments of the cosmic web and clues about the missing baryons of the Universe.
4. Tchernin, C., Eckert, D., Ettori, S., Pointecouteau, E., et al. 2016, *The XMM-Newton Cluster Outskirts Project. Physical conditions to the virial radius of Abell 2142*, A&A 595, 42
 - The impressive potential of the XMM Cluster Outskirts Project (very large programme on XMM-Newton, PI: Eckert).
5. Jauzac, M., Eckert, D., Schwinn, J., Harvey, D., et al. 2016, *The Extraordinary Amount of Substructure in the Hubble Frontier Fields Galaxy Cluster Abell 2744*, MNRAS 463, 3876
 - The comparison of gravitational lensing and X-ray maps probes the formation of structures in the Universe and the nature of dark matter.

Refereed papers

1. Eckert, D., Gaspari, M., Vazza, F., Gastaldello, F., Tramacere, A., Zimmer, S., Ettori, S., Paltani, S. 2017, *On the connection between turbulent motions and particle acceleration in galaxy clusters*, ApJ Letters in press, arXiv:1705.02341
2. Diaz, J., Eckert, D., Monajemi, H., Paltani, S., Sardy, S. 2017, *Nonparametric estimation of galaxy cluster's emissivity and point source detection in astrophysics with two lasso penalties*, submitted to Annals of Applied Statistics
3. Iqbal, A., Majumdar, S., Nath, B., Ettori, S., Eckert, D., Malik, M. 2017, *Excess entropy and energy feedback from within cluster cores up to r_{200}* , submitted to MNRAS
4. Eckert, D., Gaspari, M., Owers, M., Roediger, E., Molendi, S., Gastaldello, F., Paltani, S., Ettori, S., Venturi, T., Rossetti, M., Rudnick, L. 2017, *Deep Chandra observations of the stripped galaxy group falling into Abell 2142*, A&A in press, arXiv:1705.05844
5. Govoni, F., Murgia, M., Vacca, V., et al. 2017 (30 additional authors), *Sardinia Radio Telescope observations of Abell 194*, A&A in press, arXiv:1703.08688

6. Ettori, S., Ghirardini, V., Eckert, D., Dubath, F., Pointecouteau, E. 2017, *Dark matter distribution in X-ray luminous galaxy clusters with Emergent Gravity*, MNRAS Letters 470, 29
7. Rossetti, M., Gastaldello, F., Eckert, D., Della Torre, M., Pantiri, G., Cazzoletti, P. 2017, *The cool core state of Planck SZ-selected clusters versus X-ray selected samples: evidence for cool core bias*, MNRAS 468, 1917
8. Tchernin, C., Bartelmann, M., Huber, K., Majer, C., Meyer, S., Eckert, D., Hurier, G., Merten, J., Meneghetti, M. 2017, *Joint reconstruction of the two-dimensional gravitational potential of galaxy clusters from X-ray and Sunyaev-Zel'dovich measurements*, submitted to A&A
9. Venturi, T., Rossetti, M., Brunetti, G., Farnsworth, D., Gastaldello, F., Giacintucci, S., Lal, D., Rudnick, L., Shimwell, T., Eckert, D., Molendi, S., Owers, M. 2017, *The two-component giant radio halo in the galaxy cluster Abell 2142*, A&A in press, arXiv:1703.06802
10. Iqbal, A., Majumdar, S., Nath, B., Ettori, S., Eckert, D., Malik, M. 2016, *Little evidence for non-gravitational energy feedback beyond r_{500} - An end to ICM preheating?*, MNRAS Letters 465, 99
11. Schwinn, J., Jauzac, M., Baugh, C. M., Bartelmann, M., Eckert, D., Harvey, D., Natarajan, P., Massey, R. 2016, *Abell 2744: Too much substructure for Λ CDM?*, submitted to MNRAS
12. Basu, K. Sommer, M., Erler, J., Eckert, D., Vazza, F., Magnelli, B., Bertoldi, F., Tozzi, P. 2016, *ALMA-SZ Detection of a Galaxy Cluster Merger Shock at Half the Age of the Universe*, ApJ Letters 829, 23
13. Neronov, A., Malyshev, D., Eckert, D. 2016, *Decaying dark matter search with NuSTAR deep sky observations*, Ph. Rev. D 94, 13504
14. Jauzac, M., Eckert, D., Schwinn, J., Harvey, D., Baugh, C. M., Robertson, A., Bose, S., Massey, R., Owers, M., Shan, H.Y., Jullo, E., Kneib, J.-P., Richard, J., Atek, H., Clement, B., Egami, E., Israel, H., Knowles, K., Limousin, M., Natarajan, P., Rexroth, M., Tchernin, C. 2016, *The Extraordinary Amount of Substructure in the Hubble Frontier Fields Galaxy Cluster Abell 2744*, MNRAS 463, 3876
15. Sereno, M., Ettori, S., Eckert, D., Giles, P. Maughan, B., Pacaud, F., Pierre, M., Valageas, P. 2016, *The XXL Survey. XVI. The optimal mass proxy in the bright cluster sample*, submitted to A&A
16. Lavoie, S., Willis, J. P., Democles, J., Eckert, D., Smith, G. P., Lidman, C., et al. 2016 (26 other authors), *The XXL Survey. XV. Evidence for dry merger driven BCG growth in XXL-100 X-ray clusters*, MNRAS 462, 414
17. Eckert, D., Jauzac, M., Vazza, F., Owers, M., Kneib, J.-P., Tchernin, C., Intema, H., Knowles, K. 2016, *A shock front at the radio relic of Abell 2744*, MNRAS 461, 1302
18. Vazza, F., Bruggen, M., Wittor, D., Gheller, C., Eckert, D., Stubbe, M. 2016, *Constraining the efficiency of cosmic ray acceleration by cluster shocks*, MNRAS 459, 70

19. Eckert, D., Molendi, S., Pointecouteau, E., Ettori, S., Paltani, S., Bartelmann, M., Bourdin, H., De Grandi, S., Ferrigno, C., Gastaldello, F., Ghirardini, V., Ghizzardi, S., Hurier, G., Kneib, J.-P., Mazzotta, P., Rasia, E., Roncarelli, M., Rossetti, M., Tchernin, C., Vazza, F. 2016, *The XMM-Newton Cluster Outskirts Project. I. Cluster sample and analysis*, submitted to A&A
20. Tchernin, C., Eckert, D., Ettori, S., Pointecouteau, E., Paltani, S., Molendi, S., Hurier, G., Gastaldello, F., Lau, E. T., Nagai, D., Roncarelli, M., Rossetti, M. 2016, *The XMM-Newton Cluster Outskirts Project. Physical conditions to the virial radius of Abell 2142*, A&A 595, 42
21. Ruchayskiy, O., Boyarsky, A., Iakuboskyi, D., Bulbul, E., Eckert, D., Franse, J., Malyshev, D., Markevitch, M., Neronov, A. 2016, *Searching for decaying dark matter in deep XMM-Newton observations of the Draco dwarf spheroidal*, MNRAS 460, 1390
22. Rossetti, M., Gastaldello, M., Ferioli, G., Bersanelli, S., De Grandi, S., Eckert, D., Ghizzardi, S., Maino, D., Molendi, S. 2016, *Measuring the dynamical state of Planck SZ-selected clusters: X-ray peak - BCG offset*, MNRAS 457, 451
23. Pavan, L., Puehlhofer, G., Bordas, P., Audard, M., Balbo, M., Bozzo, E., Eckert, D., Ferrigno, C., Filipovic, M., Verdugo, M., Walter, R. 2015, *A closer view of the IGR J11014-6103 outflows*, A&A 591, 91
24. Jauzac, M., Richard, J., Limousin, M., Knowles, K., Mahler, G., Smith, G. P., Kneib, J.-P., Jullo, E., Natarajan, P., Ebeling, H., Atek, H., Clément, B., Eckert, D., Egami, E., Massey, R., Rexroth, M. 2016, *Hubble Frontier Fields: Predictions for the Return of SN Refsdal with MUSE and GMOS spectrographs*, MNRAS 457, 2029
25. Molendi, S., Eckert, D., De Grandi, S., Ettori, S., Gastaldello, F., Ghizzardi, S., Pratt, G. W., Rossetti, M. 2016, *A critical assessment of the metal content of the ICM*, A&A 586, 32
26. Eckert, D., Ettori, S., Coupon, J., Gastaldello, F., Pierre, M., Melin, J.-B., Le Brun, A., McCarthy, I. G., Adami, C., Chiapetti, L., Faccioli, L., Giles, P., Lavoie, S., Lefevre, J. P., Lieu, M., Mantz, A., Maughan, B., McGee, S., Pacaud, F., Paltani, S., Sadibekova, T., Smith, G. P., Ziparo, F. 2016, *The XXL Survey. XIII. Baryon content of the bright cluster sample*, A&A 592, 12
27. Pompei, E., Adami, C., Eckert, D., Gastaldello, F., Lavoie, S., Poggianti, B., Altieri, B., Baran, N., Benoist, C., Jaffe, Y., Koulouridis, E., Pacaud, F., Pierre, M., Sadibekova, T., Smolcic, V., Valtchanov, I. 2016, *The XXL Survey. VII. Observing the birth of a massive cluster*, A&A 592, 6
28. Fotopoulou, S., Pacaud, F., et al. 2016 (30 other authors), *The XXL Survey. VI. The 1000 brightest X-ray point sources*, A&A 592, 5
29. Lieu, M., Smith, G. P., P. Giles, et al. 2016 (18 other authors), *The XXL Survey. IV. Mass-temperature relation of the bright cluster sample*, A&A 592, 4
30. Pacaud, F., Clerc, N., et al. 2016 (33 other authors), *The XXL Survey. II. The bright cluster sample - catalogue and luminosity function*, A&A 592, 2

31. Pierre, M., Picaud, F., et al. 2016 (83 other authors), *The XXL Survey. I. Scientific motivations - XMM-Newton observing plan - Follow-up observations and simulation programme*, A&A 592, 1
32. De Grandi, S., Eckert, D., Molendi, E., Girardi, S., Roediger, M., Gaspari, M., Gastaldello, F., Ghizzardi, S., Nonino, M., Rossetti, M. 2016, *A textbook example of ram-pressure stripping in the Hydra A/A780 cluster*, A&A 592, 154
33. Eckert, D., Jauzac, M., Shan, H.Y., Kneib, J.-P., Erben, T., Israel, H., Jullo, E., Klein, M., Massey, R., Richard, J., Tchernin, C. 2015, *Warm-hot baryons comprise 5-10% of filaments in the cosmic web*, Nature 528, 105
34. Jauzac, M., Richard, J., Jullo, E., Clément, B., Limousin, M., Kneib, J.-P., Natarajan, P., Ebeling, H., Atek, H., Massey, R., Eckert, D., Egami, E., Rexroth, M. 2015, *Hubble Frontier Fields : A High-Precision Strong-Lensing Mass Model of the Massive Galaxy Cluster Abell 2744 using 150 Multiple Images*, MNRAS 452, 1437
35. Vazza, F., Eckert, D., Bruggen, M., Huber, B. 2015, *Electron and proton acceleration efficiency by merger shocks in galaxy clusters*, MNRAS 451, 2198
36. Tchernin, C., Majer, C., Meyer, S., Sarli, E., Eckert, D., Bartelmann, M. 2015, *Reconstruction of the projected gravitational potential of Abell 1689 from X-ray measurements*, A&A 574, 122
37. Eckert, D., Roncarelli, M., Ettori, S., Molendi, S., Vazza, F., Gastaldello, F., Rossetti, M. 2015, *Gas clumping in galaxy clusters*, MNRAS 447, 2198
38. Jauzac, M., Jullo, E., Eckert, D., Ebeling, H., Richard, J., Limousin, M., Atek, H., Kneib, J.-P., Clement, B., Egami, E., Harvey, D., Knowles, K., Massey, R., Natarajan, P., Rexroth, M. 2015, *Hubble Frontier Fields: The Geometry and Dynamics of the Massive Galaxy Cluster Merger MACSJ0416.1-2403*, MNRAS 446, 4132
39. Malyshev, D., Neronov, A., Eckert, D. 2014, *Constraints on 3.55 keV line emission from stacked observations of dwarf spheroidal galaxies*, Phys. Rev. D 90, 3506
40. Eckert, D., Molendi, S., Owers, M., Gaspari, M., Venturi, T., Rudnick, L., Ettori, S., Paltani, S., Gastaldello, F., Rossetti, M. 2014, *The stripping of a galaxy group diving into the massive cluster A2142*, A&A 570, 119
41. Jauzac, M., Clement, B., Limousin, M., Jullo, E., Richard, J., Kneib, J.-P., Atek, H., Natarajan, P., Knowles, K., Ebeling, H., Eckert, D., Egami, E., Massey, R., Rexroth, M. 2014, *Hubble Frontier Fields : High Precision Strong Lensing Analysis of the Cluster MACSJ0416.1-2403 using 200 Multiple Images*, MNRAS 443, 1549
42. Gastaldello, F., Limousin, M., Foex, G., Munoz, R., Verdugo, T., Motta, V., More, A., Cabanac, C., Buote, D., Eckert, D., Ettori, S., Fritz, A., Ghizzardi, S., Humphrey, P., Meneghetti, M., Rossetti, M. 2014, *Dark matter-baryon separation at the lowest mass scale: the Bullet group*, MNRAS 442, 76

43. Huber, B., Tchernin, C., Eckert, D., Farnier, C., Manalysay, A., Straumann, U., Walter, R. 2013, *Probing the cosmic-ray content of galaxy clusters by stacking Fermi-LAT count maps*, A&A 560, 64
44. Rossetti, M., Eckert, D., De Grandi, S., Ghizzardi, S., Gastaldello, F., Roediger, E., Molendi, S. 2013, *Abell 2142 at large scales: An extreme case for sloshing?*, A&A 556, 44
45. Gastaldello, F., Di Gesu, L., Ghizzardi, S., Giacintucci, S., Girardi, M., Roediger, E., Rossetti, M., Brighenti, F., Buote, D., De Grandi, S., Eckert, D., Etti, S., Humphrey, P., Mathews, W., Molendi, S. 2013, *Sloshing cold fronts in galaxy groups and their perturbing disk galaxies: An X-ray, optical and radio case study*, ApJ 770, 56
46. Eckert, D., Molendi, S., Vazza, F., Etti, S., Paltani, S. 2013, *The X-ray/SZ view of the virial region. I. Thermodynamic properties*, A&A 551, 22
47. Eckert, D., Etti, S., Molendi, S., Vazza, F., Paltani, S. 2013, *The X-ray/SZ view of the virial region. II. Gas mass fraction*, A&A 551, 23
48. Vazza, F., Eckert, D., Simionescu, A., Etti, S., Bruggen, M. 2012, *Properties of gas clumps and gas clumping in the intra cluster medium*, MNRAS 429, 799
49. Eckert, D., Vazza, F., Etti, S., Molendi, S., Nagai, D., Lau, E. T., Rossetti, M., Snowden, S. L., Gastaldello, F. 2012, *The gas distribution in the outer regions of galaxy clusters*, A&A 541, 57
50. Rossetti, M., Eckert, D., Cavalleri, B., Molendi, S., Gastaldello, F., Ghizzardi, S. 2011, *Back and forth from cool core to non-cool core: clues from radio halos*, A&A 532A, 123
51. Barrena, R., Girardi, M., Bosch, W., De Grandi, S., Eckert, D., Rossetti, M. 2011, *Internal dynamics of the galaxy cluster Abell 545*, A&A 529A, 128
52. Eckert, D., Molendi, S., Gastaldello, F., Rossetti, M. 2011, *X-ray observations of PKS 0745-191 at the virial radius: Are we there yet?*, A&A 529A, 133
53. Pian, E., Ubertini, P., Bazzano, A., Beckmann, V., Eckert, D., Foschini, L., Ghisellini, G., Pursimo, T., Tagliaferri, G., Tuerler, M. 2011, *Multiwavelength history of AGNs: INTEGRAL observations of the GeV blazar PKS 1502+106 and of the hard X-ray bright Seyfert galaxy Mkn 841*, A&A 526A, 125
54. Eckert, D., Molendi, S., Paltani, S. 2011, *The Cool-Core Bias in X-ray Galaxy Cluster Samples I: Method And Application To HIFLUGCS*, A&A 526A, 79
55. Murgia, M., Eckert, D., Govoni, F., Ferrari, C., Pandey, M., Nevalainen, J., Paltani, S. 2010, *GMRT Observations of the Ophiuchus Galaxy Cluster*, A&A 514A, 76
56. Telezhinsky, I., Eckert, D., Savchenko, V., Neronov, A., Produit, N., Courvoisier, T. J.-L. 2010, *The catalog of variable sources detected by INTEGRAL I: Catalog and Techniques*, A&A 522, 68

57. Eckert, D., Savchenko, V., Produit, N., Ferrigno, C. 2010, *INTEGRAL probes the morphology of the Crab nebula in hard X-rays/soft γ -rays*, A&A 509A, 33
58. Nevalainen, J., Eckert, D., Kaastra, J., Bonamente, M., Kettula, K. 2009, *XMM-Newton and INTEGRAL analysis of the Ophiuchus cluster of galaxies*, A&A 508, 1161
59. Eckert, D. & Paltani, S. 2009, *INTEGRAL Observations of the Perseus cluster*, A&A 495, 415
60. Eckert, D., Produit, N., Paltani, S., Neronov, A., Courvoisier, T. J.-L. 2008, *INTEGRAL discovery of non-thermal hard X-ray emission from the Ophiuchus cluster*, A&A 479, 27
61. Eckert, D., Neronov, A., Courvoisier, T. J.-L., Produit, N. 2007, *South-West extension of the hard X-ray emission from the Coma cluster*, A&A 470, 835
62. Shaw, S. E., Mowlavi, N., Rodriguez, J., Ubertini, P., Capitanio, F., Ebisawa, K., Eckert, D., Courvoisier, T. J.-L., Produit, N., Walter, R., Falanga, M. 2005, *Discovery of the INTEGRAL X/ γ -ray transient IGR J00291+5934: A Comptonised accreting ms pulsar?*, A&A 432, L13

Conference proceedings

1. Eckert, D., Etti, S., Pointecouteau, E., Molendi, S., Paltani, S., Tchernin, C. 2016, *The XMM Cluster Outskirts Project (X-COP)*, XMM-Newton: The Next Decade, Astronomische Nachrichten 338, 293, arXiv:1611.05051
2. Rossetti, M., Cavalleri, B., Molendi, S., Gastaldello, F., Ghizzardi, S., Eckert, D. 2011, *A radio approach to the cool core - non cool core dichotomy*, MmSAI 82, 537, arXiv:1101.4183
3. Eckert, D., *Hard X-ray emission from galaxy clusters observed with INTEGRAL*, MmSAI 82, 527
4. Eckert, D., Paltani, S., Courvoisier, T. J.-L. 2008, *Detection of non-thermal X-ray emission from the Ophiuchus cluster with INTEGRAL*, 7th INTEGRAL workshop proceeding, 55
5. Galis, R., Eckert, D., Paltani, Munz, F., Hudec, R. 2008, *Hard X-ray emission of cataclysmic variables observed by INTEGRAL*, 7th INTEGRAL workshop proceeding, 21
6. Eckert, D., Produit, N., Neronov, A., Courvoisier, T. J. -L. 2007, *A particle acceleration site in the Coma cluster?*, ICRC 3, 869, arXiv:0710.4417

Miscellaneous

1. Eckert, D. 2016, *PROFFIT: An interactive code for the analysis of X-ray surface-brightness profiles*, Astrophysics Source Code Library, ascl:1608.011
2. Nandra, K., Barret, D., Barcons, X. et al. 2013, *The Hot and Energetic Universe*, Athena White Paper, arXiv:1306.2307

3. Ettori, S., Pratt, G., de Plaa, J., Eckert, D., Nevalainen, J., Battistelli, E. et al. 2013, *The Hot and Energetic Universe: The astrophysics of galaxy groups and clusters*, Athena Supporting Paper, arXiv:1306.2322
4. Eckert, D. 2008, *The INTEGRAL view of galaxy clusters*, PhD thesis 4023, University of Geneva

Astronomer's Telegrams

Short articles alerting the community about transient phenomena

1. Turler, M., Eckert, D., Bozzo, E. 2015, ATel # 7848
2. Turler, M., Ferrigno, C., Eckert, D., Watanabe, K., Kuulkers, E. 2015, ATel # 7244
3. Kuulkers, E., Eckert, D., Ferrigno, C., et al. 2013, ATel # 5361
4. Eckert, D., Del Santo, M., Bazzano, A., et al. 2013, ATel # 4925
5. Soldi, S., Beckmann, V., Eckert, D., et al. 2008, ATel # 1791
6. Turler, M., Balman, S., Bazzano, A., et al. 2007, ATel # 1019
7. Turler, M., Balman, S., Bazzano, A., et al. 2007, ATel # 1021
8. Haymoz, P., Eckert, D., Shaw, S., Kuulkers, E. 2007, ATel # 1185
9. Soldi, S., Walter, R., Eckert, D., et al. 2006, ATel # 885
10. Walter, R., Eckert, D., Kreykenbohm, I., et al. 2006, ATel # 889
11. Mereghetti, S., Gotz, D., Mowlavi, N., et al. 2005, GCN # 4327,1
12. Foschini, L., Di Cocco, G., Malaguti, G., et al. 2005, ATel # 497
13. Steiner, C., Eckert, D., Mowlavi, N., Decourchelle, A., Vink, J. 2005, ATel # 672
14. Eckert, D., Walter, R., Kretschmar, P., et al. 2004, ATel # 352