

**WORK EXPERIENCE**

- 2016- Associate Professor at *Masaryk University*  
Associate Professor, “Docent” (2016-2020 part time, 2020- full time) in the Department of Theoretical Physics and Astrophysics at Masaryk University, Brno, Czech Republic
- 2016- 2020 **Leader of the MTA-ELTE Lendület Hot Universe Research Group at Eötvös University**  
Leader of the High-Energy Astrophysics research group funded by the Hungarian Academy of Sciences at Eötvös Loránd University, Budapest, Hungary
- 2017- **Associate Professor at Hiroshima University**  
Specially Appointed Assoc. Prof. in the School of Science at Hiroshima University, Japan
- 2013-2016 **Research Associate at Stanford University**  
Staff member in the Kavli Institute for Particle Astrophysics and Cosmology
- 2013–2014 **Visiting Scientist at Japan Aerospace Exploration Agency (JAXA)**  
Spent time at ISAS/JAXA collaborating on the preparation of the *ASTRO-H* satellite
- 2008–2013 **Einstein/Chandra Postdoctoral Research Fellow at Stanford University**  
Einstein fellow (2008-2011) and later postdoctoral fellow (2011-2013) at the Kavli Institute for Particle Astrophysics and Cosmology, Stanford University

**EDUCATION**

- 5/2008 **PhD in Astrophysics** “*X-ray Spectroscopy of Clusters of Galaxies and of the Cosmic Web*”  
at SRON Netherlands Institute for Space Research and Utrecht University, the Netherlands  
PhD advisor: Dr. J.S. Kaastra and Prof. dr. F. Verbunt
- 5/2004 **MSc in Astrophysics** “*Dynamics and Fragmentation of Sungrazing Comets*”  
at P. J. Šafárik University, Košice, Slovakia; Advisor: Dr. E. Neslušan
- 2/2003 **BSc in Physics** at P. J. Šafárik University, Košice, Slovakia

**HONORS AND AWARDS**

- MUNI Award for Science and Humanities grant awarded by Masaryk University to outstanding scientists from all fields of research
- Lendület II grant awarded to internationally acclaimed leading researchers by the Hungarian Academy of Sciences to establish research groups in Hungary
- *Chandra/Einstein* Postdoctoral Fellowship (NASA fellowship awarded through the Harvard Smithsonian Center for Astrophysics) 2008
- Marie Curie EARA Early Stage Training visiting fellowship to spend eight months at the Max Planck Institute for Astrophysics in Garching, Germany in 2007

**SUMMARY OF PUBLICATIONS AND TALKS**

- 122 accepted peer-reviewed publications (23 as first or corresponding author), 5 articles in *Nature* (including 1st and 2nd author), 2 in *Science*, and 7 review papers, 4600+ citations (according to SAO/ NASA Astrophysics Data System [http://adsabs.harvard.edu/abstract\\_service.html](http://adsabs.harvard.edu/abstract_service.html)) with H-index: 42
- over 100 conference talks and colloquia, including 15 invited conference talks (3 invited reviews)

**OBSERVING AWARDS AS PI**

- JVLA (23 hours) study of ‘radio-mode’ AGN feedback in nearby giant elliptical galaxies (2014)
- *SOFIA* (5 hours) survey of cold gas in nearby giant elliptical galaxies (2014)
- *XMM-Newton* observation (50 ks) of heating and cooling in NGC 7049 (2013)
- *Suzaku* observation (252 ks) of Abell 262, US co-PI with K. Matsushita as Japanese PI (2013)
- *XMM-Newton* observation (50 ks) of the group of galaxies MRC 0116+111 (2012)
- *Chandra* large-program (500 ks) Resolving the sloshing cold front in the Virgo Cluster (2012)
- VLT SINFONI observation (12 hours) Cold gas at the central black holes of giant ellipticals (2012)

- *Suzaku* observation (230 ks) Beyond the virial radius of the Virgo Cluster (2011)
- *Herschel* PACS observations (24 hours) of 9 nearby giant elliptical galaxies (2010)
- *XMM-Newton* observation (150 ks) of the double cluster RXCJ0751 (2009)
- *Chandra* observation (100 ks) of the cluster Sérsic 159-03 (2009)
- *XMM-Newton* observation (130 ks) of the cluster Abell 2029 (2007)
- *XMM-Newton* observation (135 ks) of the double cluster Abell 222/223 (2006)
- GMRT radio observation (15 hours) of the cluster Sérsic 159-03 (2006)

## FUNDING AWARDS

### As Science PI:

<i>Chandra/Einstein</i> Postdoctoral Fellowship	\$286,193	(2008)
<i>Chandra</i> AO11 observing grant “ <i>Study of the AGN Feedback in Sersic 159-03</i> ”	\$50,699	(2009)
<i>Herschel</i> AO1 observing grant “ <i>Cold Gas in the Nearby Massive Galaxies</i> ”	\$119,421	(2010)
<i>Chandra</i> AO14 observing grant “ <i>Resolving the Nearest Cold Front in the Sky</i> ”	\$119,310	(2013)
<i>XMM</i> AO13 observing grant “ <i>Rotating hot X-ray emitting atmospheres</i> ”	\$49,021	(2014)
<i>SOFIA</i> AO3 observing grant “ <i>Cold gas in nearby giant elliptical galaxies</i> ”	\$18,000	(2014)
<i>Lendület II</i> grant awarded by the Hungarian Academy of Sciences (MTA)	\$650,000	(2016)
Partner in two H2020 projects, <i>Hermes SP</i> and <i>AHEAD</i>	€140,000	(2018, 2019)
“KEP” MTA project (with Konkoly Obs.) for a <i>prototype gamma-ray detector</i>	€300,000	(2018)
MUNI Award for Science and Humanities	€1 000,000	(2020)
<b>Co-wrote two NASA Astrophysics Data Analysis Program (ADAP) grants:</b>		
NASA ADAP 2011 “ <i>The Outskirts of Galaxy Clusters</i> ”	\$295,329	(2011)
NASA ADAP 2012 “ <i>Witnessing the Growth of the Nearest Galaxy Cluster</i> ”	\$279,622	(2012)
Contributed to other observing proposals resulting in funding	\$670,000	(2009-2014)

## LEADERSHIP AND SERVICE TO THE SCIENTIFIC COMMUNITY

- Project leader for the *CAMELOT (Cubesats Applied for MEasuring and Localising Transients)* mission
- Member of the Science Working Group for the Japanese-US *ASTRO-H* X-ray observatory
- Member of the Science Working Group for the European *Athena* X-ray observatory
- Member of the LSST Galaxies and Dark Energy Science Collaborations
- Member of three NASA peer review panels for the time allocation committees of the *Chandra* satellite
- Member of three ESA review panels for the time allocation committees of the *XMM-Newton* satellite
- Member of a NASA/USRA peer review panel for the time allocation committee of the *SOFIA* airborne observatory
- Member of a NASA peer review panel, as well as an external reviewer for the Astrophysics Data Analysis Program (ADAP)
- Member of two other specialised NASA astrophysics peer review panels
- Member of 8 Scientific Organising Committees for international astronomical conferences
- Member of the attestation committee for the Astronomical Institute of the Czech Academy of Sciences
- Member of the Scientific Board for the Advanced Technologies Research Institute (ATRI), Faculty of Materials Science and Technology, Slovak University of Technology, Trnava, Slovakia
- Member of a PhD committee at the Eötvös University, Budapest
- Reviewer for the NASA Postdoctoral Program
- Reviewer for the time allocation committee of the GMRT radio telescope
- Referee for *ApJ* and *ApJ Letters*, *MNRAS*, *A&A*, *PASJ*, *Nature*, *Space Science Reviews*, and *JHEAp*
- Participant at International Space Science Institute (ISSI) in Bern, Switzerland (2007, 2017)
- Co-organizer of KIPAC tea talks (September 2009 - February 2012)

**MENTORING EXPERIENCE**

- Supervisor of:
  - five postdocs: Kiran Lakhchaura (2016- ), Francois Mernier (2017-2019), Nhut Truong (2017- ), Jakub Řípa (2018-), Masanori Ohno (2019-) at MTA-Eötvös University
  - three PhD students: Romana Grossová, Jean-Paul Breuer, Matej Kosiba at Masaryk University
  - six master students: Gábor Galgóczi (2018), Ádám Boldog (2018), Anna Görgei at Eötvös University and Anna Juráňová (2019), Eva Šinglová (2019), Tomáš Plšek, at Masaryk University
  - four bachelor students: Anna Juráňová, (2017), Matej Kosiba (2017), Jaroslava Secká (2018), Kateřina Svačinková at Masaryk University
- Co-supervisor of:
  - five PhD thesis research projects: D. Ferreira (2011), E. Million (2012), S. Ehlert (2013), Y. Ichinohe (2016), O. Urban (2016)
  - four master thesis research projects: R. Šuhada (2006); O. Madej (2008); I. Miškovičová (2008); O. Urban (2010)
  - two rotation students at Stanford University: R. Reddick (2009), R. Krishnakumar (2011)
  - summer student at Stanford University: Peter Kosec (2014)
- Co-organized and taught at the *International Astronomical Youth Camp*; 2004-2007

**TEACHING EXPERIENCE**

- Teaching a course on *High Energy Astrophysics* at Masaryk University in Brno and Eötvös University in Budapest (2016, 2017, 2018, 2019)
- Teaching a course on *Introduction to Astrophysics* together with Bence Kocsis, and Péter Raffai at Eötvös University (2018, 2019)
- Teaching an astrophysics research seminar called *CosmoTea* together with Filip Hroch at Masaryk University in Brno (2016, 2017, 2018, 2019, 2020)
- Teaching a course on *X-ray and Gamma ray Astronomy* together with Y. Fukazawa and T. Mizuno at Hiroshima University (2017, 2018)
- Teaching a course on *English for Physical sciences* at Hiroshima University (2017, 2018)
- Guest lecturing at the course on *Observational Astrophysics* by Prof. Steven Allen at Stanford University (2010, 2011, 2012, 2015)
- Lecturing at the AHEAD School on High Resolution X-ray Spectroscopy in Alicante, Spain (2017)
- Lecturing at the ESO/Opticon/IAU Summer school on modern instruments and their science case in Brno, Czech Republic (2015)
- Teaching assistant for the course on *Active Galactic Nuclei*, by Dr. J. Kaastra and Dr. M. Méndez and *Observational Astrophysics*, by Prof. F. Verbunt and Prof. J. Bleeker at Utrecht University (2005-2007)

**PUBLIC OUTREACH**

- Initiated eight NASA, ESA, and JAXA press releases, four MTA-ELTE, and four Masaryk University press releases on results obtained with the *Chandra*, *XMM-Newton*, *Suzaku*, and *Herschel* satellites
- A number of public lectures about astronomy for schools, planetaria, astronomy clubs and events in the San Francisco Bay Area, and in the Czech Republic, Slovakia, and Hungary
- A number of TV, radio, newspaper, and podcast appearances about astronomy in the Czech Republic, Slovakia, and Hungary
- High profile outreach activities include appearances at *TEDxBratislava*, in the TV programs *Hyde Park Civilizace on ČT* and *Experiment on RTVS*, in Japanese documentaries about the *origin of elements and black holes on NHK*, the popular interview program *Pod Lampou*, Hungarian TV program “*Everybody’s Academy*”, talk at the *San Francisco Nerd Night* for over 300 people, talk about black holes at the *Pohoda summer festival*, a sold out public lecture in the *Brno Planetarium*

**LIST OF SELECTED TALKS**

Over 100 seminars, colloquia, and conference talks since the completion of PhD, including 15 invited conference talks (3 invited reviews). For a complete list of talks see:

*A correlation between supermassive black holes and the hot atmospheres of host galaxies*

September 2019, Talk at the conference “The 3C Extragalactic Radio Sky: Legacy of the Third Cambridge Catalogue”, Turin, Italy

*Hot Atmospheres and Black Hole Activity in Massive Galaxies*

September 2019, Astrophysics Colloquium at the University of Waterloo, Waterloo, Canada

*The Hot Universe and the Use of CubeSats in Monitoring the High-Energy Sky*

September 2019, Physics Colloquium at the University of Victoria, Victoria, Canada

*Hot Atmospheres and AGN Feedback in Early Type Galaxies*

September 2019, Astrophysics Colloquium at the University of Victoria, Victoria, Canada

*Hot Atmospheres and AGN Feedback in Early Type Galaxies*

September 2019, Astrophysics Colloquium at the University of British Columbia, Vancouver, Canada

*Democratising Space Research by 2050*

May 2019, Talk at the *ESA Voyage 2050* workshop at SRON Netherlands Institute for Space Research, Utrecht, The Netherlands

*X-ray spectroscopy of the atmospheres of galaxies, clusters of galaxies, and of planets in our Solar system*

April 2019, Talk at the Czech *Athena X-IFU* kickoff meeting, Prague, Czech Republic

*The Hot Universe and the Use of CubeSats in Monitoring the High-Energy Sky*

April 2019, Colloquium at the Czech Technical University, Prague, Czech Republic

*Hot Atmospheres and AGN Feedback in Early Type Galaxies*

December 2018, Astrophysics Colloquium at the Bologna University, Bologna, Italy

*Towards a Network of GRB Detecting Nanosatellites*

November 2018, talk at the conference “10 years of the Czech Republic in ESA” Prague, Czech Republic

*CAMELOT: Cubesats Applied for MEasuring and LOcalising Transients*

October 2018, talk at the International Astronautical Congress 2019, Bremen, Germany

*CAMELOT: Cubesats Applied for MEasuring and LOcalising Transients*

September 2018, talk at the conference “Towards a Network of GRB Detecting Nanosatellites” Budapest, Hungary

*Hot X-ray Atmospheres, Multi-phase Gas and AGN Feedback in Early Type Galaxies*

September 2018, talk at the “Exploring the Hot and Energetic Universe: The second scientific conference dedicated to the Athena X-ray observatory” Palermo, Italy

*The hot atmospheres of three very different galaxies*

July 2018, **Invited talk** at the conference “Multiphase AGN Feeding & Feedback”, Sexten Center for Astrophysics, Sesto, Italy

*CAMELOT: Cubesats Applied for MEasuring and LOcalising Transients*

June 2018, Tea talk at KIPAC at Stanford University/SLAC, USA

*CAMELOT: Cubesats Applied for MEasuring and LOcalising Transients*

June 2018, talk at the SPIE conference on Astronomical Instrumentation Space Telescopes and Instrumentation: Ultraviolet to Gamma Ray, Austin, Texas, USA

*Black hole feedback and chemical enrichment in clusters and giant elliptical galaxies*

April 2018, Colloquium at IRAP, Toulouse, France

*Black hole feedback and chemical enrichment in clusters and giant elliptical galaxies*

February 2018, Lunch Seminar at Pennsylvania State University, USA

*Black hole feedback and chemical enrichment in clusters and giant elliptical galaxies*

February 2018, Princeton University/Institute for Advanced Studies joint Colloquium, Princeton, USA

*The enrichment history of the ICM in high redshift systems and in the cluster outskirts with Athena*

January 2018, talk together with F. Mernier and N. Tuong at the workshop “Preparing the science of galaxy clusters & WHIM with Athena“, Sexten Center for Astrophysics, Sesto, Italy

*Heating vs. cooling in the X-ray emitting atmospheres of giant elliptical galaxies*

November 2017, **Invited talk** at the International Space Science Institute (ISSI), Bern, Switzerland

*Black hole feedback and chemical enrichment in clusters of galaxies*

October 2017, Colloquium at SRON Netherlands Institute for Space Research, Utrecht, the Netherlands

*Chemical Enrichment of Clusters of Galaxies and the Large Scale Structure of the Universe*

September 2017 **Invited talk** at “The power of X-ray spectroscopy” conference, Warsaw, Poland

*Black hole feedback and chemical enrichment in clusters of galaxies*

July 2017, Colloquium at ISAS/JAXA, Tokyo, Japan

*Black hole feedback and chemical enrichment in clusters of galaxies*

July 2017, Colloquium at Nagoya University, Nagoya, Japan

*Chemical Enrichment of Clusters of Galaxies and the Large Scale Structure of the Universe*

June 2017 **Invited Plenary talk** at EWASS, Prague, Czech Republic

*Chemical Enrichment of Clusters of Galaxies and the Large Scale Structure of the Universe*

June 2017, Colloquium at Charles University in Prague, Czech Republic

*Black holes, chemical enrichment, and the physics of the intergalactic medium*

March 2017, Astroparticle Seminar at DESI, Zeuthen, Germany

*Black holes, chemical enrichment, and the physics of the intergalactic medium*

March 2017, Colloquium at Hamburg Observatory, Hamburg, Germany

*The Origin of Cold Gas in Giant Elliptical Galaxies and Its Role in Fueling Radio-mode AGN Feedback*

February 2017, **Invited talk** at “The remarkable life of a BCG” workshop, Sesto, Italy

*The Origin of Cold Gas in Giant Elliptical Galaxies and Its Role in Fueling Radio-mode AGN Feedback*

October 2016, Talk at “The Local Truth: Star-Formation and Feedback in the SOFIA Era” conference, Pacific Grove, USA

*Hitomi study of the Perseus Cluster*

September 2016, **Invited talk** at the 8th FERO meeting, Vinice Hnanice, Czech Republic

*Deep Chandra observations as probes of detailed ICM physics*

August 2016, **Invited talk** at the 4th "Physics of the Intracluster Medium: Theory and Computation" workshop, University of Minnesota, Twin Cities, USA

*Hitomi study of the Perseus Cluster*

August 2016, Colloquium at the Carnegie Observatories, Pasadena, USA

*From supermassive black holes to the large-scale structure of the Universe*

February 2016, Colloquium at the Masaryk University, Brno, Czech Republic

*From supermassive black holes to the large-scale structure of the Universe*

February 2016, Colloquium at the Astronomical Institute of the Slovak Academy of Sciences, Stará Lesná, Slovak Republic

*Sculpting the visible Universe*

February 2016, Colloquium at the University of Nevada, Las Vegas, Las Vegas, USA

*Sculpting the visible Universe*

February 2016, Colloquium at the University of Miami, Miami, USA

*The beating hearts of galaxies*

October 2015, Colloquium in the "What Physicists Do" lecture series, Sonoma State University, USA

*How supermassive blackholes and star formation sculpt the visible Universe*

March 2015, Colloquium at Masaryk University, Brno, Czech Republic

*How supermassive blackholes and star formation sculpt the visible Universe*

March 2015, Ortway Seminar at the Eötvös Loránd University, Budapest, Hungary

*Deep Chandra observation of the nearest cold front in the sky: Implications for the microphysics of the hot intra-cluster plasma*

March 2015, **Invited talk** at the conference "Snowcluster 2015 - The Physics of Galaxy Clusters", Snowbird, Utah, USA

*How supermassive blackholes and star formation sculpt the visible Universe*

March 2015, Colloquium at the University of Nevada, Las Vegas, USA

*From supermassive black holes to the large-scale structure of the Universe*

February 2015, Colloquium at the University of Melbourne, Melbourne, Australia

*From supermassive black holes to the large-scale structure of the Universe*

February 2015, Colloquium at ATNF CSIRO, Sydney, Australia

*Radio-mechanical AGN feedback in nearby giant elliptical galaxies*

February 2015, **Invited talk** at "The Most Massive Galaxies and their Precursors" conference, Sydney, Australia

*From supermassive black holes to the large-scale structure of the Universe*

January 2015, Colloquium at the University of Alabama in Huntsville, Huntsville, USA

*The growth of galaxy clusters and the virialization of the intra-cluster medium*

October 2014, High Energy Astrophysics talk at the Massachusetts Institute of Technology, Cambridge, USA

*The growth of galaxy clusters and the virialization of the intra-cluster medium*

October 2014, HEAD lunch talk at the Harvard-Smithsonian Center for Astrophysics, Cambridge, USA

*The origin of cold gas in giant elliptical galaxies and its role in fueling radio-mode AGN feedback*

August 2014, **Invited talk** at the “3rd ICM Theory and Computation Workshop”, Niels Bohr Institute, Copenhagen, Denmark

*The origin of cold gas in giant elliptical galaxies and its role in fueling radio-mode AGN feedback*

July 2014, talk at the “Inhomogeneities in Intracluster Plasma” workshop at Stanford University, USA

*Astro-H observations of the Perseus Cluster, WHIM and Dark Matter*

July 2014, Astro-H Collaboration Science Meeting, Paris, France

*From supermassive black holes to the large-scale structure of the Universe*

June 2014, Colloquium at the Konkoly Observatory of the Hungarian Academy of Sciences, Budapest, Hungary

*The outskirts of the nearest, X-ray brightest galaxy clusters*

June 2014, talk at “The X-ray Universe 2014” conference in Dublin, Ireland

*From supermassive black holes to the large-scale structure of the Universe*

February 2014, Colloquium at Charles University, Prague, Czech Republic

*The Astro-H X-ray Observatory*

February 2014, Colloquium at the Astronomical Institute of the Czech Academy of Sciences, Prague, Czech Republic

*From supermassive black holes to the large-scale structure of the Universe*

January 2014, Colloquium at the Leiden Observatory, Leiden, the Netherlands

*From supermassive black holes to the large-scale structure of the Universe*

January 2014, Colloquium at SRON Netherlands Institute for Space Research, Utrecht, the Netherlands

*Cold gas in giant elliptical galaxies and its role in fueling radio-mode AGN feedback*

September 2013, talk at the conference “KIPAC@10”, SLAC National Accelerator Laboratory, Menlo Park, USA

*Filamentary cold gas in nearby giant ellipticals*

March 2013, **Invited talk** at the conference “Snowcluster 2013 - Physics of Galaxy Clusters”, Snowbird, Utah, USA

*From the stirred centers to the unsettled outskirts of galaxy clusters*

March 2013, Colloquium at the Space Science Laboratory, University of California in Berkeley, Berkeley, USA

*Astro-H observations of the Perseus Cluster and of Dark Matter*

February 2013, Talk at the ASTRO-H Collaboration Science Meeting, Tsukuba, Japan

*From the stirred centers to the unsettled outskirts of galaxy clusters*

February 2013, Colloquium at the University of California in Santa Cruz, Santa Cruz, USA

*The Physics of the Baryon Cycle in the Largest Objects in the Universe*

September 2012, Colloquium at ISAS/JAXA, Sagami-hara, Japan

*Properties of hot and cold gas phases in nearby ellipticals*

August 2012, **Invited talk** at the “2nd ICM Theory and Computation Workshop”, University of Michigan, Ann Arbor, USA

*Observational clues about the chemical enrichment of the intergalactic medium*

May 2012, **Invited review** at the conference: “Whereabouts, Physical State and Metallicity of the Missing Baryons in the Local Universe”, Cervia-Milano Marittima, Italy

*The Physics of the Baryon Cycle in the Largest Objects in the Universe*

February 2012, Colloquium at the Michigan State University, East Lansing, USA

*Detailed View of AGN Feedback in Nearby Cooling Cores*

October 2011, Joint seminar at the University of Maryland and Goddard Space Flight Center, College Park, USA

*Baryons in the outskirts of the nearest brightest galaxy clusters*

July 2011, **Invited review** at the conference: “Structure in Clusters and Groups of Galaxies in the *Chandra* Era”, Boston, USA

*X-ray Spectroscopy of the Virgo Cluster out to the Virial Radius*

June 2011, Talk at the conference: “The X-ray Universe 2011”, Berlin, Germany

*X-ray studies of galaxy clusters: From the active nuclei to the elusive outskirts*

March 2011, Colloquium at Masaryk University, Brno, Czech Republic

*X-ray studies of galaxy clusters: From the active nuclei to the elusive outskirts*

March 2011, Colloquium at Charles University, Prague, Czech Republic

*X-ray studies of galaxy clusters: From the active nuclei to the elusive outskirts*

March 2011, Colloquium at the Dark Cosmology Centre, Niels Bohr Institute, Copenhagen, Denmark

*X-ray studies of galaxy clusters: From the active nuclei to the elusive outskirts*

March 2011, Astrophysics Colloquium, Argelander-Institut für Astronomie, Bonn, Germany

*X-ray studies of galaxy clusters: From the active nuclei to the elusive outskirts*

March 2011, Astrophysics Colloquium, Utrecht University & SRON, Utrecht, the Netherlands

*Detailed view of AGN feedback in nearby cooling cores*

March 2011, Talk at the conference “Monsters, Inc.: Galaxy Clusters: the Crossroads of Astrophysics and Cosmology”, Santa Barbara, USA

*X-ray studies of galaxy clusters: From the active nuclei to the elusive outskirts*

February 2011, Astrophysics Seminar, UC Irvine, Irvine, USA

*X-ray studies of galaxy clusters: From the active nuclei to the elusive outskirts*

January 2011, Theoretical Astrophysics Seminar, UC Berkeley, Berkeley, USA

*Feedback under the microscope: close-up view of the AGN-ICM interaction in M87*

October 2010, Talk at the Einstein fellow symposium, Harvard-Smithsonian Center for Astrophysics, Cambridge, USA

*Physics of Cluster Cores*

August 2010, Talk at the “New paths in studies of galaxy clusters” conference, Stubai Alps, Austria



*Feedback under the microscope: close-up view of the AGN-ICM interaction in M87*

April 2010, Talk at the “Snowcluster 2010” conference, Utah, USA

*Metals as tracers of the history of galaxy clusters*

March 2010, **Invited review** at the High-resolution X-ray Spectroscopy meeting, Utrecht, the Netherlands

*Feedback under the microscope: close-up view of the AGN-ICM interaction in M87*

March 2010, Talk at the HEAD meeting, Kona, Hawaii, USA

*Feedback under the microscope: close-up view of the AGN-ICM interaction in M87*

January 2010, Colloquium at IUCAA, Pune, India

*Small scale turbulence in giant elliptical galaxies*

October 2009, Talk at the Einstein fellow symposium, Harvard-Smithsonian Center for Astrophysics, Cambridge, USA

*Small scale turbulence in giant elliptical galaxies*

August 2009, Talk at the IAU General Assembly, Rio de Janeiro, Brazil

*Small scale turbulence in giant elliptical galaxies*

July 2009, Colloquium at ISAS/JAXA, Sagamihara, Japan

*Small scale turbulence in giant elliptical galaxies*

July 2009, Talk at the Tokyo University of Science, Tokyo, Japan

*Chemical abundances in the hot plasma - from elliptical galaxies to massive clusters*

May 2009, talk at the workshop “Chemical Enrichment of the Intergalactic medium” in the Lorentz Center, Leiden, the Netherlands

*Small scale turbulence in giant elliptical galaxies*

May 2009, talk at the “Cosmology in Northern California” conference, Santa Cruz, USA

*Resonant scattering in elliptical galaxies*

November 2008, talk at the University of Virginia, Charlottesville, USA

*Resonant scattering in elliptical galaxies*

October 2008, Pizza lunch talk at Columbia University, New York, USA

*Clusters of galaxies and the cosmic web*

October 2008, talk at the Chandra fellow symposium, Harvard-Smithsonian Center for Astrophysics, Cambridge, USA

*Detection of hot gas in the filament connecting the clusters of galaxies Abell 222/223*

May 2008, talk at “The X-ray Universe 2008” conference, Granada, Spain

**SUMMARY OF PUBLICATIONS IN PEER-REVIEWED JOURNALS**

122 accepted refereed publications (23 as first or corresponding author) · 5 articles in *Nature* (including 1st and 2nd author) and 2 in *Science* · 7 review papers · 4600+ citations (according to SAO/NASA Astrophysics Data System [http://adsabs.harvard.edu/abstract\\_service.html](http://adsabs.harvard.edu/abstract_service.html)) · H-index: 42

**LIST OF REFEREED PUBLICATIONS**

122. *Hot atmospheres of galaxies, groups, and clusters of galaxies*

**Werner, N.**, Mernier, F. 2020, Reviews in Frontiers of Modern Astrophysics: From Space Debris to Cosmology" (eds. Kabath, Jones and Skarka), Springer Nature

121. *X-ray signatures of black hole feedback: Hot galactic atmospheres in IllustrisTNG and X-ray observations*

Truong, N.; Pillepich, A.; **Werner, N.**; Nelson, D.; Lakhchaura, K.; Weinberger, R.; Springel, V.; Vogelsberger, M.; Hernquist, L. 2020, MNRAS in press. [arXiv: 1911.11165]

120. *How do atomic code uncertainties affect abundance measurements in the intracluster medium?*

Mernier, F.; **Werner, N.**; Lakhchaura, K.; de Plaa, J.; Gu, L.; Kaastra, J.S.; Mao, J.; Simionescu, A.; Urdampilleta, I. 2020, Astronomische Nachrichten, 341, 203

119. *Correlations between supermassive black holes, hot atmospheres, and the total masses of early type galaxies*

Lakhchaura K., Truong N., **Werner N.**, 2019, MNRAS Letters, 488, L134

118. *Powerful AGN jets and unbalanced cooling in the hot atmosphere of IC 4296*

Grossová, R., **Werner, N.**, Rajpurohit, K., Mernier, F., Lakhchaura, K., Gabányi, K.; Canning, R. E. A., Nulsen, P., Massaro, F., Sun, M., Connor, T., King, A., Allen, S. W., Frisbie, R. L. S., Donahue, M., Fabian, A. C. 2019, MNRAS, 488, 1917

117. *Transient detection capabilities of small satellite gamma-ray detectors*

Bagoly, Z.; Balázs, L. G.; Galgóczi, G.; Ohno, M.; Pál, A.; Rípa, J.; Tóth, L. V.; **Werner, N.** 2019, Astronomische Nachrichten, 340, 681

116. *Estimation of the detected background by the future gamma-ray transient mission CAMELOT*

Ripa, J., Galgóczi, G., **Werner, N.**, Pál, A., Ohno, M., Mészáros, L., Mizuno, T., Tarcai, N., Torigoe, K., Uchida, N., Fukazawa, Y., Takahashi, H., Nakazawa, K., Hirade, N., Hirose, K., Hisadomi, S., Enoto, T., Odaka, H., Ichinohe, Y., Frei, Z., Kiss, L. 2019, Astronomische Nachrichten, 340, 666

115. *Suppressed effective viscosity in the bulk intergalactic plasma*

Zhuravleva, I., Churazov, E., Schekochihin, A. A., Allen, S. W., Vikhlinin, A., **Werner, N.** 2019, Nature Astronomy, 019, 0794

114. *Magnetic fields and extraordinarily bright radio emission in the X-ray faint galaxy group MRC 0116+111*

Mernier, F., **Werner, N.**, Bagchi, J., Simionescu, A., Böhringer, H., Allen, S. W., Jacob, J. 2019, MNRAS, 486, 5430

113. *X-ray spectra of the Fe-L complex*

Gu, L., Raassen, A. J. J., Mao, J., de Plaa, J., Shah, C., Pinto, C., **Werner, N.**, Simionescu, A., Mernier, F., Kaastra, J. S. 2019, A&A, 627, 51

112. *Performance study of a large CsI(Tl) scintillator with an MPPC readout for nanosatellites used to localize gamma-ray bursts*

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