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Persons of reference:

- Prof. Jelle S. Kaastra (Leiden Observatory) – [kaastra@strw.leidenuniv.nl](mailto:kaastra@strw.leidenuniv.nl)
- Dr. Norbert Werner (MTA-Eötvös University Lendület) – [wernernorbi@gmail.com](mailto:wernernorbi@gmail.com)
- Dr. Jelle de Plaa (SRON Netherlands Institute for Space Research) – [j.de.plaa@sron.nl](mailto:j.de.plaa@sron.nl)

Born: June 27, 1989 – Brussels, Belgium

Nationalities: Belgian, French

## Current position

*ESA Research Fellow*, ESTEC (Mentor: Dr. Matteo Guainazzi)  
(Noordwijk, The Netherlands)

## Past positions

2017-2019	<i>Postdoctoral Researcher</i> , MTA-Eötvös University (Mentor: Dr. Norbert Werner) (Budapest, Hungary)
2017-2017	<i>Postdoctoral Researcher</i> , Leiden University (Mentor: Prof. Jelle S. Kaastra) (Leiden, The Netherlands)

## Skills

AREAS OF SPECIALIZATION

X-ray spectroscopy – Clusters/groups of galaxies – Intracluster medium –  
Chemical enrichment – *XMM-Newton*

## COMPUTING SKILLS

Expert	SPEX – <i>XMM-Newton</i> SAS
Good	UNIX console – BASH – Fortran 90 – Python – matplotlib – L <sup>A</sup> T <sub>E</sub> X – XSPEC – HEAsoft – SAO ds9 – CIAO
Intermed.	Linux – Mac OS – Windows – Inkscape – GIMP – C
Basic	HTML – C++

## LANGUAGES

Fluent	French – English
Intermed.	Dutch

## Education

2013-2017	PHD in High-energy Astrophysics, Leiden University/SRON (Leiden/Utrecht, The Netherlands)
2010-2012	MSc in Space Sciences, University of Liège (Liège, Belgium) – <i>Magna Cum Laude</i>
2007-2010	BSc in Physics, Université Libre de Bruxelles (Brussels, Belgium) – <i>Cum Laude</i>
2001-2007	HIGH SCHOOL in Latin-Mathematics, Lycée Émile Jacqmain (Brussels, Belgium) – <i>Cum Laude</i>

## Grants & Awards

2019	<i>XMM-Newton</i> observation - “Searching for X-ray non-thermal emission in an extraordinarily radio-bright galaxy group”: PI, 210 ks (~58 h)
2016	71th Netherlands Astronomy Conference - Poster Prize: Laureate
2006	Orthograph Championship (French): Laureate

## Conferences, Colloquia & Workshops

### INVITED TALKS

Dec. 2020	“Chemical enrichment in galaxy clusters”, <i>Extragalactic universe with HE and VHE sources</i> , online
June 2019	“Chemical abundances in the hot atmospheres of galaxy clusters, groups, and elliptical galaxies”, <i>Astrophysics of Hot Plasmas in Extended X-ray Sources</i> , ESAC, Madrid (Spain)
March 2018	“Spatial distribution of metals in the intracluster medium”, <i>SnowCluster 2018: The Physics of Galaxy Clusters</i> , Snowbird, Utah (USA)
Nov. 2017	“Elemental abundances and chemical enrichment in the intracluster medium”, <i>Clusters of Galaxies: Physics and Cosmology – International Space Science Institute (Workshop)</i> , Bern (Switzerland)

## CONTRIBUTED TALKS

- Oct. 2020 “Metals (and dust) in the hot gas phase: From massive clusters down to massive galaxies”, *The Rise of Metals and Dust through Cosmic Times*, online
- July 2019 “Chemical abundances and enrichment in the intracluster medium”, *Tracing Cosmic Evolution with Clusters of Galaxies*, Sexten (Italy)
- March 2019 “Chemical enrichment of the atmospheric gas in clusters, groups, and massive galaxies”, *Physics of the Intra-Cluster Medium: Theory and Computation*, Budapest (Hungary)
- June 2017 “Radial distribution of metals in the hot intra-cluster medium as observed by *XMM-Newton*”, *The X-ray Universe 2017*, Rome (Italy)
- April 2017 “Radial metal abundance profiles in the intra-cluster medium of cool-core clusters, groups, and ellipticals”, *Physics of the Intra-Cluster Medium*, Beijing (China)
- May 2016 “CHEERS! The origin of heavy elements in galaxy clusters”, *SRON Science Days*, Delfsen (The Netherlands)
- July 2015 “The CHEERS project”, *The Metal Enrichment of Diffuse Gas in the Universe*, Sexten (Italy)
- May 2015 “CHEERS: Chemical enrichment in the hot gas of galaxy clusters seen through *XMM-Newton* EPIC”, *Spectroscopy of Cosmic Plasma in the Era of ASTRO-H*, Tokyo (Japan)
- June 2014 “An *XMM-Newton* view of Abell 4059”, *The X-ray Universe 2014*, Dublin (Ireland)

## COLLOQUIA & SEMINARS

- Jan. 2020 “From supernovae to galaxies (and beyond): What metals in hot galactic and cluster atmospheres tell us”, *Kavli IPMU Colloquium*, Tokyo (Japan)
- Jan. 2020 “From supernovae to galaxies (and beyond): What metals in hot galactic and cluster atmospheres tell us”, *Hiroshima University Seminar*, Hiroshima (Japan)
- Jan. 2019 “Elemental abundances and chemical enrichment in the hot intracluster medium”, *MPE seminar*, Garching (Germany)
- Dec. 2018 “Metals in galaxy clusters and groups, and giant elliptical galaxies hot atmospheres: Recent improvements and current challenges of X-ray observations”, *CfA lunch talk*, Cambridge (USA)
- May 2018 “Elemental abundances and chemical enrichment in the hot intracluster medium”, *Hiroshima University Seminar*, Hiroshima (Japan)
- May 2018 “Understanding the chemical enrichment pattern in the hot haloes of massive ellipticals, groups, and clusters of galaxies”, *Kavli IPMU Colloquium*, Tokyo (Japan)
- March 2018 “From supernovae to galaxy clusters: Chemical enrichment in the hot intracluster medium”, *Lowell Observatory Colloquium*, Flagstaff, Arizona (USA)
- Feb. 2018 “Elemental abundances and chemical enrichment in the intracluster medium”, *IRAP Seminar*, Toulouse (France)
- April 2017 “From supernovae to galaxy clusters: Observing the chemical enrichment in the intra-cluster medium”, *PhD Colloquium*, Leiden (The Netherlands)
- Jan. 2017 “From supernovae to galaxy clusters: Chemical enrichment of the intra-cluster medium seen by *XMM-Newton*”, *Ortvay Colloquium*, Budapest (Hungary)
- Dec. 2013 “Probing chemical abundances in Abell 4059 using *XMM-Newton*”, *Argelander Institut für Astronomie Seminar*, Bonn (Germany)

## POSTERS

- Sept. 2019

- “Metals in the intracluster medium”, *X-ray astronomy 2019: Current Challenges and New Frontiers in the Next Decade*, Bologna (Italy)
- Sept. 2018 “Abundance measurements in the intracluster medium: Consequences of spectral code improvements”, *Exploring the Hot and Energetic Universe: The second scientific conference dedicated to the Athena X-ray observatory*, Palermo (Italy)
- Sept. 2017 “Radial distribution of metals in the intra-cluster medium”, *The power of X-ray spectroscopy*, Warsaw (Poland)
- Dec. 2016 “Radial metal abundance profiles in the hot intra-group and intra-cluster medium”, *The Physics of Groups and Galaxy Properties therein*, Paris (France)
- May 2016 “Chemical enrichment in the hot intra-cluster medium seen with XMM-Newton/EPIC”, *XMM-Newton: The next decade*, ESAC, Madrid (Spain)
- May 2016 “The origin of heavy elements in galaxy clusters”, *71th Netherlands Astronomy Conference*, Nunspeet (The Netherlands)
- May 2015 “An XMM-Newton study of temperatures and abundances in Abell 4059”, *70th Netherlands Astronomy Conference*, Nunspeet (The Netherlands)
- Sept. 2013 “Chemical enrichment in clusters of galaxies from the XMM/Suzaku to the ASTRO-H era”, *4th ASTRO-H summer school*, Shuzenji (Japan)

## Teaching & Outreach

- 2020 Supervising BSc student (Tora Arnesen): [LEAPS summer programme](#), ESTEC
- 2020 Co-supervising BSc student (Iga Kaczmarek): ESA internship, ESTEC
- 2019 “[Astronomy on Tap - Budapest](#)” (co-organisier), wide audience
- 2018 High energy astrophysics (guest lecturer), MSc level, Eötvös University
- 2018-2019 Co-supervising BSc student (Anna Görgei): BSc thesis, Eötvös University
- 2017-2018 Co-supervising BSc student (Ádám Boldog): BSc thesis, Eötvös University
- Sum. 2015 Co-supervising BSc student (Sinancan Kara): BSc thesis, SRON/Bogazici University
- 2014-2015 High energy astrophysics (Teaching assistant), MSc level, Leiden Observatory
- 2011-2013 Private student tutoring (Mathematics; physics), high school level, Brussels
- 2007-now Astronomy camp (teaching & animating, high school level), “[Jeunesse et Science ASBL](#)”, Modave (Belgium)

### OUTREACH TALKS

- Aug. 2020 “Black holes” (in French), *Jeunesse et Science*, Modave (Belgium)
- Dec. 2019 “Space telescopes” (in French), *Jeunesse et Science*, Modave (Belgium)
- July 2019 “Clusters of galaxies... and the surprises of their spectacular hot atmospheres”, *Astronomy on Tap - Budapest*, Budapest (Hungary)
- April 2019 “The dark side of matter”, *Astronomy on Tap - Budapest*, Budapest (Hungary)
- Dec. 2018 “Pluto (and the borders of the Solar System)” (in French), *Jeunesse et Science*, Modave (Belgium)
- Dec. 2017 “Stellar nucleosynthesis” (in French), *Jeunesse et Science*, Modave (Belgium)
- Jan. 2017 “A journey to the stars” (in French), *Heydeken rest home*, Brussels (Belgium)
- April 2016 “Clusters of galaxies” (in French), *Jeunesse et Science*, Modave (Belgium)
- Aug. 2014 “Clusters of galaxies” (in French), *Jeunesse et Science*, Modave (Belgium)
- April 2013 “Massive stars” (in French), *Jeunesse et Science*, Modave (Belgium)
- Aug. 2012 “The Sun across time” (in French), *Jeunesse et Science*, Modave (Belgium)
- Aug. 2011 “Dark matter” (in French), *Jeunesse et Science*, Modave (Belgium)
- Aug. 2010 “Death of stars” (in French), *Jeunesse et Science*, Modave (Belgium)

April 2008 “Black holes” (in French), *Jeunesse et Science*, Modave (Belgium)

## Service to the department

2020-now Member of the ESTEC SAC (Staff Association Committee), ESTEC  
2020-now Member/coordinator of the YPAG (Young Professional Advisory Group), ESTEC  
2020-now Co-organiser of weekly “breakfast seminars”, ESTEC  
2019 Webmaster of the [Lendület Hot Universe Research Group](#) website, Budapest  
March 2019 LOC member of the “Physics of the Intra-Cluster Medium: Theory and Computation” conference, Budapest  
2014-2017 Chair/organiser of regular “Galaxy clusters meetings”, Leiden Observatory  
2014-2015 Organizer of the colloquium dinner events, SRON  
2014-2017 Member of the “Social committee”, Leiden Observatory  
2013-2014 Online update of arXiv preprints, Leiden Observatory website

Last updated: November 20, 2020