

CURRICULUM VITAE

CONTACT INFORMATION:

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Researcher on Solar-Terrestrial Physics

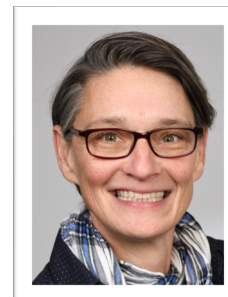
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ACADEMIC MILESTONES and RELEVANT POSITIONS:

04/2022-03/2024 Head of the Department for Astro- and Geophysics

Institute of Physics, University of Graz, Austria

Since **10/2016 Associate Professor of Astrophysics and group leader** (<http://swe.uni-graz.at>)

Institute of Physics, University of Graz, Austria

02/2015 Habilitation (postdoctoral lecture qualification)

04-09/2014 Senior Research Fellow

Lockheed Martin Solar and Astrophysics Laboratory, Palo Alto, USA

04-09/2010 Post-Doc Scientist

Space Research Institute of the Austrian Academy of Sciences, Graz, Austria

2008-2010 Post-Doc Scientist

Institute of Physics, University of Graz, Austria

2007-2008 Post-Doc Scientist

Space Research Institute of the Austrian Academy of Sciences, Graz, Austria

2005-2007 Post-Doc Scientist

Hvar Observatory, Faculty of Geodesy, University of Zagreb, Croatia

2001-2004 PhD student and research assistant

Institute of Physics, University of Graz, Austria

ACADEMIC PUBLICATIONS (source: NASA ADS, March 2023):

- 218 peer-reviewed scientific papers in international journals (32 as first author; more than 200 articles and abstracts in conference proceedings) with a total citation >8700
- h-index: 53



RESEARCH TOPICS:

Multi-wavelength, multi viewpoint data - combining observations and modelling

- Coronal mass ejections: evolution from Sun to IP space
- Solar wind: solar wind structures in IP space and relation to coronal holes
- Space Weather on Earth and Mars: detection of CMEs and co-rotating interaction regions; thermospheric, magnetospheric, and Forbush decrease effects
- Coronal waves: association to coronal mass ejections
- Solar cycle studies
- Science Co-I Solar Orbiter/STIX (Spectrometer/Telescope for Imaging X-rays)

SCIENTIFIC ACHIEVEMENTS and AWARDS:

- 2019: Reserve candidate for the *Stanford University Distinguished Visiting Austrian Chair Professorship*
- 2014: *NASA Group Achievement Award to RHESSI Science and Data Analysis Team* (in recognition of sustained outstanding science achievements over a full 11-year cycle of solar activity)
- 2010: *Elise Richter fellowship (Career Development Programme for Women)* from the Austrian Science Fund
- 2008: *APART (Austrian Programme for Advanced Research and Technology) fellowship* from the Austrian Academy of Sciences
- 2005: *Erwin Schrödinger Scholarship* from the Austrian Science Fund

SCIENTIFIC PROJECTS as Principal Investigator:

- 2021-2023 SWESNET Expert Service Group Heliospheric/Ionospheric Weather (ESA)
- 2021-2023 “Use of L5 data in CME propagation models” (ESA; cooperation with RAL)
- 2020-2023 “Magnetosheath jets throughout the solar cycle” (FWF; cooperation with IWF Graz)
- 2020-2022 “Forecasting space weather effects on low Earth orbiting satellites” (FFG ASAP16; cooperation with TU Graz)
- 2019-2021 ISSI Bern International Team lead on “Magnetic open flux and solar wind structuring of interplanetary space”
- 2017-2021 “Constraining CMEs and Shocks by Observations and Modelling throughout the inner heliosphere” (local PI; BELSPO)
- 2017-2019 “Solar wind evolution - assessment for multi-viewpoint instruments” (FFG-ASAP13)
- 2017-2019 “ESA-SSA Expert Service Group for Heliospheric Weather – P3” (ESA)
- 2016-2017 “Early Evolution of CMEs and associated dimming regions” (ÖAD/WTZ)
- 2015-2017 “ESA-SSA Expert Service Group for Heliospheric Weather – P2” (ESA)
- 2013-2016 “Quiet solar wind flow and interacting disturbances” (NAWI-Graz)
- 2012-2015 “eHEROES: Environment for Human Exploration and RObotic Experimentation in Space” (local PI; EU FP7-SPACE)
- 2011–2015 “CMEs – dynamic evolution in the heliosphere” (FWF)
- 2011–2012 “3D properties of coronal mass ejections” (FFG-ASAP7)
- 2008–2010 “Forces governing CMEs and forecasting of CME arrival times” (Austrian Academy of Sciences)
- 2005–2007 “On the feed-back relation between flares and CMEs” (FWF)



TEACHING at the UNIVERSITY of GRAZ:

- Supervision of PhD, Master and Bachelor students at the Institute of Physics
- Since 2002 Lectures/Seminars/Exercises/Laboratories on the subject of Solar- and Astrophysics on Master student's level
 - Data Analyses of ground-based and space-borne instruments (remote/in-situ)
 - Physics of stellar atmospheres
 - MHD and solar-terrestrial modeling
 - Introduction to Solar Physics (Exercises)
 - Selected Problems in Astrophysical Data Analysis
 - Astronomical Laboratory 1+2
 - Instruments and Observational Techniques
 - Introduction to Planetology
 - Hydrodynamics
 - Master Seminar in Astrophysics

COMMUNITY SERVICE:

- Member of the Science/Schedule Organising Committee „Heliophysics in Europe“ to be held at ESTEC Oct 30-Nov 3, 2023
- Editor for the Coimbra Solar Physics Meeting ASPCS 2015, Vol. 504
- National Coordinator for the International Space Weather Initiative (ISWI)
- National Contact for the International Space Environment Services (ISES)
- COSPAR PSW representative of University of Graz
- Austrian representative to SCOSTEP and SCOSTEP/PRESTO
- Local contact of the *e-CALLISTO* radio-station AUSTRIA-UNIGRAZ
- since 2018 Editorial Board member for the international journal 'Solar Physics'
- since 2015 EGU-ST Science Officer and Liaison Officer
- 2021-2023 Member of the ESA Solar System and Exploration Working Group
- 2019-2023 iSWAT Moderator for H2 Cluster Heliosphere Variability (iswat-cospar.org)
- 2017-2022 Member of the UN Expert Group on Space Weather
- 2012-2021 Topical Editor for Annales Geophysicae (Solar and Heliospheric Physics)

- Referee for international journals: Nature, Solar Physics, Astronomy and Astrophysics, Astrophysical Journal, Geophysical Research Letters, Journal of Geophysical Research, Advances in Space Research, Monthly Notices of the Royal Astronomical Society, New Astronomy

- SOC member, session convener and co-convener for international conferences (EGU, COSPAR, SCOSTEP, VarSITI, ISEST, ILWS, ESWW, ...)

ORGANIZATION of SCIENTIFIC WORKSHOPS and MEETINGS:

- Organizer of the “1st Magnetosheath Jet Workshop” in Graz, held at the University of Graz in 2023
- Organizer of the SWAP Meeting in Graz in 2023
- Organizer of the “Katastrophenpotential Weltraumwetter” 2020 at the Academy of Sciences in Vienna, held Dec 9, 2020
- Organizer of the „Österreichischer Weltraumwetterworkshop 2015“ at the Kanzelhöhe Observatory, held Mar 19-20, 2015
- Co-Organizer of the Kanzelhöhe Colloquium 2013
- Co-Organizer of the EU-FP7 project HESPE 2nd year meeting held at the University of Graz in 2012



- Organizer of the Scientific Workshop "On the solar eruptions of August 1-4, 2010" held at the University of Graz in 2011
- Co-Organizer of the Jahrestagung der OEGAA (Society for Astronomy and Astrophysics in Austria) held at the University of Graz in 2005
- Co-Organizer of International Summerschool at Kanzelhöhe Observatory 2003

RESEARCH COLLABORATIONS (international):

- Denmark Technical University, Denmark (Vennerstroem)
- EOS, Univ. of New Hampshire, Durham, NC, USA (Lugaz, Farrugia, Scolini, Zhuang)
- Hvar Observatory, Univ. of Zagreb, Croatia (Vršnak, Brajša, Dumbovic, Calogovic)
- Institute for Astrophysics, University of Göttingen, Germany (Bothmer)
- Johns Hopkins University, Applied Physics Lab, MD, USA (Vourlidas)
- KU Leuven, Belgium (Poedts, Verbeke)
- Lockheed Martin Solar and Astrophysics Laboratory (Nitta, Aschwanden)
- NASA Goddard Space Flight Center, Greenbelt, MD, USA (Gopalswamy, Mays, Kay, Kuznetsova)
- Max Planck Institute for Solar System Research (Heinemann)
- Royal Observatory of Belgium, Brussels, Belgium (Magdalenic, Rodriguez)
- University of Helsinki, Finland (Asvestari, Kilpua, Pomoell)
- University of Kiel, Germany (Heber)
- University of Science and Technology, China (Guo)