

# CURRICULUM VITAE

## CONTACT INFORMATION:

**assoc.-Prof. Mag. Dr. Manuela TEMMER**

Researcher on Solar-Terrestrial Physics

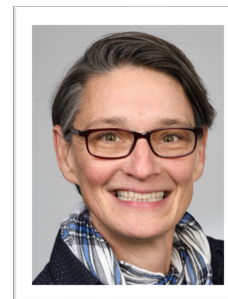
Institute of Physics, University of Graz

Universitätsplatz 5, 8010 Graz, Austria

Email: [manuela.temmer@uni-graz.at](mailto:manuela.temmer@uni-graz.at)

WebP: <http://physik.uni-graz.at/en/astrophysics/temmer/>

ORCID: <https://orcid.org/0000-0003-4867-7558>



## 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, October 2022):

- 215 peer-reviewed scientific papers in international journals (32 as first author; more than 200 articles and abstracts in conference proceedings) with a total citation >8300
- h-index: 52



## 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:

- 2021-2023 Member of the ESA Solar System and Exploration Working Group
- since 2018 Editorial Board member for the international journal 'Solar Physics'
- 2012-2021 Topical Editor for Annales Geophysicae (Solar and Heliospheric Physics)
- Editor for the Coimbra Solar Physics Meeting ASPCS 2015, Vol. 504
- since 2015 EGU-ST Science Officer and Liaison Officer
- iSWAT: Moderator for the Cluster H2 in the Heliosphere Variability (iswat-cospar.org)
- 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
- Contact of the *e-CALLISTO* radio-station AUSTRIA-UNIGRAZ
- 2017-2022 Member of UN Expert Group on Space Weather
  
- 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 "Katastrophenpotential Weltraumwetter" 2020 at the Academy of Sciences in Vienna, held December 9, 2020
- Organizer of the „Österreichischer Weltraumwetterworkshop 2015“ at the Kanzelhöhe Observatory, held March 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)