

FRANZISKA ZEUNER

Curriculum Vitae

Research Experience

- Since 01/2023 Postdoctoral researcher at IRSOL working in the SNF funded project **As-trophysical Spectropolarimetry**, characterizing and improving instrumentation for ground-based solar telescopes, conducting observations with subsequent data analysis and -management
- 12/2019 - 12/2022 Postdoctoral researcher at IRSOL working as **PI in the European SOLAR-NET Horizon2020 project** "Absolute high-precision solar polarimetry", developing innovative observational techniques in combination with new instrumentation
- 05/2016 - 11/2019 Selected **PhD candidate** of the International Max Planck Research School for Solar System Science in the group "Solar Lower Atmosphere and Magnetism" at the Max Planck Institute for Solar System Research, focusing on ground-based solar spectropolarimetry
- 10/2014 - 12/2015 Scientific **research assistant** in the working group "Ultra-fast Nanophotonics" at the University of Paderborn with the key aspect of measuring the optical nonlinear response of meta-surfaces

Advanced Education

- 08/2020 **Doctor rerum naturalium, magna cum laude**
Title of doctoral thesis *High resolution scattering spectropolarimetry of the quiet solar photosphere*
Supervisors Prof. Dr. Sami K. Solanki, Prof. Dr. Ansgar Reiners, Dr. Alex Feller, Dr. Michiel van Noort
University of Göttingen, Germany
- 10/2014 **Master of Science, mark: 1.1 (passed with distinction)**
Title of master thesis *Coherent control of localized plasmonic excitations via optical nearfield coupling, awarded with the excellent theses prize* in natural sciences of the University of Paderborn 2014
Supervisor Prof. Dr. Thomas Zentgraf
University of Paderborn, Germany
- 01/2013 **Bachelor of Science, mark: 1.6**
Title of bachelor thesis *Realisation and characterisation of an actively stabilized Michelson-interferometer for coherent control of NIR-fs-pulses*
Supervisor Prof. Dr. Thomas Zentgraf
University of Paderborn, Germany

Selected recent Conference contributions and Talks

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- Invited keynote talk **F. Zeuner:** Hanle rotation finally revealed in Sr I 4607 Å - *Solar Polarization Workshop 10*, Kyoto, Japan (2022)
- Invited MERAC talk **F. Zeuner:** High-precision spectro-polarimetric measurements with enhanced accuracy for probing the unresolved solar photospheric magnetic field - *Swiss Society for Astronomy and Astrophysics GA*, Bern, Switzerland (2022)
- Invited seminar talk **F. Zeuner et al.:** How a "simple" spectral line continues to challenge paradigms in solar physics - *Solar physics group seminar*, IAC, La Laguna, Spain (2021)
- Invited talk **F. Zeuner et al.:** Scattering polarization measurements with FSP and FSP II - *NSO Seminar, DKIST Science Workshop*, Boulder, USA (2018)

Grants and accepted Proposals

- Observation **DKIST**, 2023, PI in the proposal *Spatio-temporally resolved linear scattering polarization in the Sr I line at 4607 Å: a window to the small-scale photospheric magnetism* accepted in Cycle 2.
- Observation **DKIST**, 2023, Co-I in the proposal *Probing the Photospheric Conditions for Spectral Line Scattering in Sr 4607* (PI: I. Milic) accepted in Cycle 2.
- Fund **SOLARNET Mobility**, 2023, funded two month project *Interpreting spatially resolved scattering polarization measurements with high-precision and enhanced accuracy for probing the solar photospheric magnetic field* at the Institute for Astrophysics of the Canary Islands/Spain (2000 CHF).
- Support **Kyoto University**, 2022, 1900 CHF **Traveling Support**
- Observation **GREGOR**, 2022, proposal *ZIMPOL@GREGOR: Observing scattering polarization with high resolution, high-precision and enhanced accuracy* (Zeuner et al.) accepted in Cycle 2022B.
- Award **Swiss Society for Astronomy and Astrophysics**, 2022, 2430 CHF **MERAC Travel Award**
- Support **Swiss Society for Astronomy and Astrophysics**, 2021, 1580 CHF **Young Scientist Support**
- Observation **DKIST**, 2021, Co-I in the proposal *Are chromospheric swirls torsional Alfvén waves?* (PI: A. Battaglia) accepted in Science Merit Group B in Cycle 1.
- Observation **National Solar Observatory**, 2017, 2 weeks stay at the Dunn Solar Telescope, New Mexico, USA