

**Spanish-German
WE-Heraeus-Seminar
"Interdisciplinary Physics of
the Sun"**

Report of Contributions

Contribution ID: **193**

Type: **Invited Lecture**

Small-Scale Structure in the Lower Solar Atmosphere

Monday 30 June 2025 16:50 (50 minutes)

Presenter: BELLO GONZÁLEZ, Nazaret (Institut für Sonnenphysik (KIS))

Contribution ID: **194**

Type: **not specified**

Opening

Monday 30 June 2025 09:00 (20 minutes)

Presenters: Prof. BEMMERER, Daniel (Helmholtz-Zentrum Dresden-Rossendorf); Prof. ROTH, Markus (TLS Tautenburg and Uni Jena); SERENELLI, Aldo (Institute of Space Science (ICE, CSIC))

Contribution ID: **195**

Type: **Invited Lecture**

Solar elemental abundances

Thursday 3 July 2025 09:00 (50 minutes)

Presenter: BERGEMANN, Maria (MPIA)

Contribution ID: **196**

Type: **Invited Lecture**

Solar Spectropolarimetry

Tuesday 1 July 2025 16:50 (50 minutes)

Presenter: BORRERO, Juan Manuel (Institute for Solar Physics)

Contribution ID: **197**

Type: **Invited Lecture**

Dynamical processes in the Sun and non-standard solar models

Monday 30 June 2025 11:50 (50 minutes)

Presenter: BULDGEN, Gaël (Université de Liège)

Contribution ID: **198**

Type: **Invited Lecture**

Spectropolarimetry with VTT and GREGOR: 25+ years of successful German-Spanish collaboration

Wednesday 2 July 2025 11:00 (50 minutes)

Presenter: COLLADOS, Manuel (Instituto de Astrofísica de Canarias - University of La Laguna)

Contribution ID: **199**

Type: **Invited Lecture**

Observations of Solar Magnetic Activity

Friday 4 July 2025 09:00 (50 minutes)

Presenter: DENKER, Carsten (Leibniz Institute for Astrophysics Potsdam (AIP))

Contribution ID: **200**

Type: **Invited Lecture**

Experimental challenges in Underground Nuclear Astrophysics Laboratory

Monday 30 June 2025 14:20 (50 minutes)

Presenter: FORMICOLA, Alba (INFN Roma)

Contribution ID: **201**

Type: **Invited Lecture**

Solar fusion cross sections III: a nuclear physics perspective

Wednesday 2 July 2025 09:50 (50 minutes)

Presenter: GUGLIELMETTI, Alessandra (Università degli studi di Milano e INFN Milano)

Contribution ID: **202**

Type: **Invited Lecture**

Solar Energetic Particles –Remote sensing and in situ observations

Monday 30 June 2025 11:00 (50 minutes)

Presenter: HEBER, Bernd (Christian-Albrechts-Universität Kiel)

Contribution ID: 203

Type: **Invited Lecture**

Deutsches Zentrum für Astrophysik and Gravitational Wave Detection

Thursday 3 July 2025 13:30 (50 minutes)

Presenter: HEURS, Michèle (Leibniz University Hannover and DESY/DZA)

Contribution ID: **204**

Type: **Invited Lecture**

Helioseismology at low-degree: BiSON results through solar cycles

Thursday 3 July 2025 09:50 (50 minutes)

Presenter: HOWE, Rachel (University of Birmingham)

Contribution ID: 205

Type: **Invited Lecture**

Realistic simulations of the solar magneto-convection including effects of partial ionization

Monday 30 June 2025 09:20 (50 minutes)

Presenter: KHOMENKO, Elena (Instituto de Astrofisica de Canarias)

Contribution ID: **206**

Type: **Invited Lecture**

Past solar activity

Thursday 3 July 2025 14:20 (50 minutes)

Presenter: KRIVOVA, Natalie (Max Planck Institute for Solar System Research)

Contribution ID: **207**

Type: **Invited Lecture**

DFG's Priority Programme (Schwerpunktprogramm)

Thursday 3 July 2025 11:00 (30 minutes)

Presenter: KRÜCKEBERG, Stefan (Deutsche Forschungsgemeinschaft / German Research Foundation)

Contribution ID: **208**

Type: **Invited Lecture**

Solar pp-chain reactions studied underground

Tuesday 1 July 2025 16:00 (50 minutes)

Presenter: MASHA, Eliana (HZDR)

Contribution ID: **209**

Type: **Invited Lecture**

Exploring magnetic flux cancellation from the solar photosphere to the corona.

Tuesday 1 July 2025 09:00 (50 minutes)

Presenter: MORENO INSERTIS, Fernando (Instituto de Astrofísica de Canarias)

Contribution ID: **210**

Type: **Invited Lecture**

Solar Orbiter: Science Highlights and Mission Status

Monday 30 June 2025 16:00 (50 minutes)

Presenter: MÜLLER, Daniel (ESA)

Contribution ID: 211

Type: **Invited Lecture**

Understanding Solar Opacity: Fundamentals, Theoretical Foundations, and Experimental Validation

Monday 30 June 2025 13:30 (50 minutes)

Presenter: NAGAYAMA, Taisuke (Sandia National Laboratories)

Contribution ID: 212

Type: **Invited Lecture**

The Corona of the Sun and its connection to the surface

Thursday 3 July 2025 16:00 (50 minutes)

Presenter: PETER, Hardi (MPI for Solar System Research, Göttingen and Institute for Solar Physics, Freiburg)

Contribution ID: **213**

Type: **not specified**

Closing

Friday 4 July 2025 12:00 (30 minutes)

Presenters: Prof. BEMMERER, Daniel (HZDR); Prof. ROTH, Markus (TLS Tautenburg and Uni Jena); SERENELLI, Aldo (Institute of Space Science (ICE, CSIC))

Contribution ID: **214**

Type: **Invited Lecture**

The standard solar model

Wednesday 2 July 2025 11:50 (50 minutes)

Presenter: SERENELLI, Aldo (Institute of Space Sciences (CSIC-IEEC))

Contribution ID: 215

Type: **Invited Lecture**

Current status of the European Solar Telescope

Wednesday 2 July 2025 09:00 (50 minutes)

Presenter: SOCAS-NAVARRO, Hector (European Solar Telescope Foundation)

Contribution ID: **216**

Type: **Invited Lecture**

Solar magnetohydrodynamics: Paradigmatic liquid-metal experiments and some theoretical aspects

Tuesday 1 July 2025 11:00 (50 minutes)

Presenter: STEFANI, Frank (Helmholtz-Zentrum Dresden-Rossendorf)

Contribution ID: 217

Type: **Invited Lecture**

The response of the Sun to Modifications of its Internal Properties

Tuesday 1 July 2025 11:50 (50 minutes)

Presenter: VILLANTE, Francesco (University of L'Aquila and INFN-LNGS)

Contribution ID: **218**

Type: **Invited Lecture**

Solar neutrino measurements by Borexino and at future detectors

Friday 4 July 2025 09:50 (50 minutes)

Presenter: WURM, Michael (JGU Mainz)

Contribution ID: **219**

Type: **Contributed Talk**

3D rMHD sunspot models and their implications for other cool stars

Tuesday 1 July 2025 09:50 (20 minutes)

Presenter: BHATIA, Tanayveer Singh (Max Planck Institute for Solar System Research)

Contribution ID: **220**

Type: **Contributed Talk**

Solar neutrino flux fluctuations caused by gravity modes

Friday 4 July 2025 11:20 (20 minutes)

Presenter: HATTA, Yoshiki (Nagoya University/Institute for Space-Earth Environmental Research)

Contribution ID: **221**

Type: **Contributed Talk**

Standard Solar Model and variations with Kernels method

Friday 4 July 2025 11:40 (20 minutes)

Presenter: HERRERA, Yago (Institute of Space Sciences - CSIC)

Contribution ID: 222

Type: **Contributed Talk**

Lateral Deformation of two Coronal Mass Ejections in the Transition from Non-radial to Radial Propagation

Thursday 3 July 2025 15:10 (20 minutes)

Presenter: HU, Huidong (National Space Science Center, Chinese Academy of Sciences)

Contribution ID: 223

Type: **Contributed Talk**

Present knowledge of $3\text{He}(3\text{He},2\text{p})4\text{He}$ and $3\text{He}(4\text{He},\gamma)7\text{Be}$.

Tuesday 1 July 2025 17:40 (20 minutes)

Presenter: IMBRIANI, Gianluca (University of Naples Federico II and INFN Naples)

Contribution ID: 224

Type: **Contributed Talk**

TauSoL imaging spectropolarimeter: Concept and design

Thursday 3 July 2025 16:50 (20 minutes)

Presenter: PRUTHVI, Hemanth (Thüringer Landessternwarte (TLS))

Contribution ID: 225

Type: **Contributed Talk**

Spectrometry of cosmic-ray neutrons with the High Efficiency Neutron Spectrometry Array

Thursday 3 July 2025 17:10 (20 minutes)

Presenter: QUERO BALLESTEROS, Álvaro Jesús (Universidad de Granada)

Contribution ID: 227

Type: **Contributed Talk**

Global coronal models driven with Alfven and kink waves

Friday 4 July 2025 11:00 (20 minutes)

Presenter: VAN DOORSSELAERE, Tom (KU Leuven)

Contribution ID: 228

Type: **Poster**

Probing chromospheric fine structures with an H__α proxy in MURaM Simulations

Monday 30 June 2025 10:22 (3 minutes)

Presenter: CHANDRA, Sanghita (Max Planck Institute for Solar System Research)

Contribution ID: 229

Type: **Poster**

How Much Are We Missing? Observational Limits on Magnetic Helicity Transport in Emerging Magnetic Structures

Monday 30 June 2025 15:10 (3 minutes)

Presenter: CHOE, Gwangson (Kyung Hee University)

Contribution ID: **230**

Type: **Poster**

f-mode travel-time signature of sunspot models and plages

Monday 30 June 2025 10:25 (3 minutes)

Presenter: DAIFFALLAH, Khalil (Centre de Recherche en Astronomie, Astrophysique et Géophysique CRAAG)

Contribution ID: 231

Type: **Poster**

The Daniel K. Inouye Solar Telescope observations of shock waves triggered by magnetic vortices

Tuesday 1 July 2025 10:19 (3 minutes)

Presenter: GANGADHARAN, Vigeesh (Institut für Sonnenphysik (KIS))

Contribution ID: 232

Type: **Poster**

Gamma-ray angular distribution of the $^3\text{He}(\alpha, \gamma)^7\text{Be}$ -reaction

Monday 30 June 2025 17:43 (3 minutes)

Presenter: HEMPEL, Peter (Helmholtz-Zentrum Dresden-Rossendorf (HZDR))

Contribution ID: 233

Type: **Poster**

Radial and Latitudinal Structure of the Sun: Icosahedral Symmetry?

Monday 30 June 2025 10:19 (3 minutes)

Presenter: JEAN-GUILLAUME, Richard (Independent Scholar)

Contribution ID: 234

Type: **Poster**

Multi-line spectroscopy of a sunspot with a strong light bridge

Tuesday 1 July 2025 10:16 (3 minutes)

Presenter: KAMLAH, Robert (Leibniz-Institut für Astrophysik Potsdam)

Contribution ID: 235

Type: **Poster**

Simulation of sunspots in the chromosphere

Monday 30 June 2025 15:13 (3 minutes)

Presenter: KRISHNAN KUTTY, Aswathi (Max Planck Institute for Solar System Research, Goettingen, Germany)

Contribution ID: 236

Type: **Poster**

Stereoscopic disambiguation of solar vector magnetic fields using observations from SO/PHI and SDO/HMI

Monday 30 June 2025 17:52 (3 minutes)

Presenter: LI, Xiang (Max Planck Institute for Solar System Research)

Contribution ID: 237

Type: **Poster**

Quasi-Periodic Pulsations in EUV Brightenings

Monday 30 June 2025 15:22 (3 minutes)

Presenter: LIM, Daye (KU Leuven)

Contribution ID: **238**

Type: **Poster**

New measurement of the $2\text{H}(p,\gamma)3\text{He}$ reaction at Felsenkeller underground lab

Tuesday 1 July 2025 10:25 (3 minutes)

Presenter: LUKYANOVA, Maria (TU Dresden)

Contribution ID: **240**

Type: **Poster**

Uniturbulence and Alfvén wave solar model in MPI-AMRVAC

Monday 30 June 2025 15:16 (3 minutes)

Presenter: MCMURDO, Max (KU Leuven)

Contribution ID: **241**

Type: **Poster**

MRI in Rotating Flows: Implications for the Solar Tachocline and Dynamo Processes

Tuesday 1 July 2025 10:22 (3 minutes)

Presenter: MISHRA, Ashish (Helmholtz-Zentrum Dresden-Rossendorf)

Contribution ID: 242

Type: **Poster**

PyAstroPol: A Python Package for Polarization Ray Tracing

Monday 30 June 2025 17:40 (3 minutes)

Presenter: PRUTHVI, Hemanth (Thüringer Landessternwarte (TLS))

Contribution ID: 243

Type: **Poster**

Advanced Gas Target Techniques for Nuclear Astrophysics

Tuesday 1 July 2025 10:10 (3 minutes)

Presenter: SCHMIDT, Konrad (HZDR)

Contribution ID: 244

Type: **Poster**

Heating, magnetism and geometry of small-scale coronal loops

Tuesday 1 July 2025 10:13 (3 minutes)

Presenter: SOLA-VILADESAU, Eva (Universidad de La Laguna)

Contribution ID: 245

Type: **Poster**

Active region evolution from different viewpoints

Monday 30 June 2025 15:25 (3 minutes)

Presenter: STRECKER, Hanna (Instituto de Astrofísica de Andalucía (IAA-CSIC))

Contribution ID: 246

Type: **Poster**

Towards a reconstruction of the annual solar Irradiance over the past 9 millennia

Monday 30 June 2025 10:10 (3 minutes)

Presenter: TEMAJ, Duresa (Max planck Institute for Solar System Research)

Contribution ID: **247**

Type: **Poster**

First 3D inversion of a solar prominence

Monday 30 June 2025 17:49 (3 minutes)

Presenter: VICENTE AREVALO, Andres (KIS Institute fur Sonnenphysik)

Contribution ID: 248

Type: **Poster**

Initial steps in the inference of horizontal velocity fields in the solar atmosphere

Monday 30 June 2025 15:19 (3 minutes)

Presenter: VILA CRESPO, Helena (Universidad de La Laguna)

Contribution ID: **249**

Type: **Poster**

Space Weather and Earth's Climate

Monday 30 June 2025 10:13 (3 minutes)

Presenter: VON KUSSEROW, Ulrich (Private)

Contribution ID: 250

Type: **Poster**

Using modern data to understand historical solar observations

Monday 30 June 2025 17:46 (3 minutes)

Presenter: YADAV, Ajay Kumar (Max Planck Institute for Solar System Research)

Contribution ID: 251

Type: **Poster**

NuFFER - NuPECC Forum for Early Career Researchers

Tuesday 1 July 2025 10:28 (2 minutes)

Presenter: MASHA, Eliana (Helmholtz-Zentrum Dresden-Rossendorf (HZDR))

Contribution ID: **252**

Type: **not specified**

Poster session

Tuesday 1 July 2025 13:30 (2 hours)

Contribution ID: 253

Type: **not specified**

Excursion to Biergarten Grafenwerth

Wednesday 2 July 2025 16:00 (2 hours)

<https://www.biergarten-grafenwerth.de>

We meet at 16:00 outside the lecture hall and then walk to Biergarten Grafenwerth (15 minutes).

Contribution ID: 254

Type: **not specified**

Discussion on possible DFG SPP application in 2026

Thursday 3 July 2025 11:30 (1 hour)