

Agenda – program

June 30, 2019, Sunday. 17:30 Reception. Museo Mineralogico of the University of Atacama

July 1, 2019, Monday

9:00-9:30 Intro and welcome speeches

Session 1. New observational diagnostics of solar, stellar and interstellar magnetic fields

9:30-10:00 Photospheric magnetic-field diagnostics in the Sun and the stars (Sami K. Solanki, MPS, Germany)

10:00-10:30 Probing the Chromosphere-Corona Transition Region via UV Spectropolarimetry (Javier Trujillo Bueno, IAC, Spain)

10:30-11:00 Coffee break

11:00-11:30 Magnetic field measurements with the Atacama Large Millimeter/Submillimeter Array (Svend Wedemeyer, Univ. Oslo, Norway)

11:30-11:45 Performance and first results with the Integral Field Unit of the GRIS spectrograph at GREGOR (Manuel Collados, IAC, Spain)

11:45-12:00 Diagnosing chromospheric magnetic field through simultaneous spectropolarimetry in H α and Ca II 854.2 nm (Nagaraju Krishnappa, Indian Institute of Astrophysics, India)

12:00-12:15 Diagnosing coronal magnetic fields with radio imaging-spectroscopy technique (Yihua Yan, NAO/CAS, China)

12:15-12:30 One-minute poster introductions

12:30-14:00 Lunch

Session 2. Progress in understanding the solar/stellar interior dynamics and dynamos

14:00-14:30 Global numerical MHD simulations (Gustavo Guerrero, UFMG, Brazil)

14:30-15:00 New concepts for dynamos and convection (Irina Kitiashvili, NASA/Ames, U.S.A.)

15:00-15:30 Helioseismic insights into the generation and evolution of the Sun's internal magnetic field (Anne-Marie Broomhall, Univ. Warwick, U.K.)

15:30-16:00 Coffee break

16:00- 17:30 Poster session

18:00-19:00 Public lecture. Prof. Mario Soto: “Dos minutos de noche durante el día. ECLIPSE 2019”. Location: auditorium J. J. Vallejo in the Copiapó center. Lecture is in Spanish. See poster.

July 2, 2019, Tuesday. Eclipse tour.

July 3, 2019, Wednesday

Session 3. Stellar rotation and magnetism

9:00-9:30 Magnetic field evolution in solar-type stars (Axel Brandenburg, NORDITA, Sweden)

9:30-10:00 Links between magnetic field and stellar rotation (Pascal Petit, IRAP Toulouse, France)

10:00 – 10:15 Dynamo transitions in simulations of Sun-like stars and understanding them (Mariagela Viviani, MPS, Germany)

10:15- 10:30 The past and the future of the Sun: What solar twins can tell us about the solar magnetic and rotational evolution? (Diego Lorenzo-Oliveira, Univ. de Sao Paulo, Brazil)

10:30-11:00 Coffee break

11:00-11:30 Asteroseismology of solar-like stars (Andrea Miglio, Univ. Birmingham, U.K.)

11:30-12:00 Characterization of stellar activity using transits and its impact on habitability (Raissa Estrela, Caltech, U.S.A.)

12:00-12:30 One-minute poster introductions

12:30-14:00 Lunch

Session 4. Role of magnetic fields in solar and stellar variability

14:00-14:30 Magnetoseismology of the Sun (Paul Cally, Monash Univ., Australia)

14:30-14:45 The solar clock (Christopher Russell, UCLA, U.S.A.)

14:45-15:00 Solar radius and asphericities variations: outstanding unsolved points (Jean-Pierre Rozelot, UCA-Nice, France)

15:00-15:15 Asymmetry in large scale plasma flows and the sunspot cycle (Lekshmi B, Center of Excellence in Space Sciences, India)

15:15-15:30 The dynamo-wind feedback loop: Characterising how the solar wind varies along the 11-year solar cycle (Barbara Perri, CEA Saclay, France)

15:00-16:00 Coffee break

16:00- 17:30 Poster session

July 4, 2019, Thursday

Session 5. Star-planet relations

9:00-9:30 Solar activity and its influence on planetary atmosphere evolution (Janet Luhmann, UC Berkeley, U.S.A.)

9:30-10:00 Stellar magnetic activity and star-planet interactions (Aline Vidotto, TCD, Ireland)

10:00-10:15 From the Sun to solar-type stars: radial velocity, photometry, astrometry and log R'HK time series for late-F to early-K old stars (Nadege Meunier, UGA, Grenoble, France)

10:15-10:30 The UV/X-ray radiation and particle (CME) fields of M dwarf exoplanet host stars and how they evolve (Alexander Brown, Univ. Colorado, U.S.A.)

10:30-11:00 Coffee break

11:00-11:30 Modeling of CME and magnetosphere-wind interactions (Dmitry Bisikalo, INASAN, Russia)

11:30-12:00 Simulating coronal mass ejections in active stars (Julian Alvarado Gomez, CfA, U.S.A.)

12:00-12:15 Star-planet interaction through spectral lines (Carolina Villarreal D'Angelo, TCD, Ireland)

12:15-12:30 One-minute poster introductions

12:30-14:00 Lunch

Session 6. Formation, structure and dynamics of solar and stellar coronae and winds

14:00 – 15:30 Special session. First results from the Parker Solar Probe

14:00-14:30 Some first results from the FIELDS instrument suite on Parker Solar Probe (S. Bale, UC Berkeley, U.S.A.)

14:30-15:00 Integrated science investigation of the Sun (ISOIS): Overview and initial results (Ralph McNutt, Johns Hopkins Univ., U.S.A.)

15:00-15:15 Parker Solar Probe SWEAP thermal plasma measurements from the first encounter (Kelly Korreck, CfA, U.S.A.)

15:15-15:30 How collisionless are solar wind electrons? Collisional and collisionless effects in the solar wind heat-flux transport (Pablo Moya, Univ. Chile, Chile)

15:30-16:00 Observational constraints of solar-like stellar winds (Manuel Guedel, Univ. Vienna, Austria)

16:00-16:30 Coffee break

16:30-17:15 Poster session

July 5, 2019, Friday

Session 7. Mechanisms of flaring and CME activity on the Sun and stars

9:00-9:30 Trigger mechanisms of major solar flares (Shuhong Yang, NAO CAS, China)

9:30-10:00 Solar flares: spectropolarimetric diagnostics (Jaime de la Cruz Rodriguez, Stockholm Univ., Sweden)

10:00-10:15 Magnetic field changes in flares (Lucia Kleint, KIS, Germany)

10:15-10:30 The magnetic activity of Proxima Centauri during 2017-2018 (Gabriel Hickel, Univ. Federal de Itajuba, Brazil)

10:30-11:00 Coffee break

11:00-11:15 The solar and stellar flare connection (Lauren Doyle, Armagh Obs., U.K.)

11:15-11:30 Magnetic field time series in magnetic clouds (Victor Munoz, Univ. de Chile, Chile)

11:30-11:45 Coronal dimming as a proxy for stellar CMEs (Meng Jin, SETI, USA)

11:45-12:00 Slingshot prominences in solar-like stars (Moira Jardine, Univ. St. Andrews, U.K.)

12:00- 12:15 A large rotational structure around AB Doradus A (Juan Bautista Climent Oliver, Univ. Valencia, Spain)

12:15-14:00 Lunch

Session 8. Surface magnetic fields of cool stars

14:00-14:30 The large-scale field of cool and solar-like stars (Thorsten A. Carroll, AIP, Germany)

14:30-15:00 Surface magnetic fields of solar analogs (Sandra V. Jeffers, Univ. Goettingen, Germany)

15:00-15:15 Flux emergence rates of sunspots (Aimee Norton, Stanford Univ., U.S.A.)

15:15-15:30 Simulations of flux emergence in cool stars: the role of convection, rotation, and stellar structure (Maria Weber, Univ. Chicago, U.S.A.)

15:30-16:00 Coffee break

16:00-16:30 Big trouble in little Cen. The complex atmosphere and flare activity of Proxima Cen and other M-dwarfs (Alejandro Suarez Mascareno, IAC, Spain)

16:30-16:45 Probing solar-cycle variations of magnetic fields in the convection zone using meridional flows (Chia-Hsien Lin, National Central Univ., Taiwan)

16:45-17:00 A spectroscopic analysis of the steady chromosphere of low-activity early-M dwarfs (Gaetano Scandariato, INAF Catania, Italy)

July 6, 2019, Saturday

Session 9. Observations of solar eclipses and exoplanetary transits (Open public session)

9:00-9:30 Solar eclipses (Jay Pasachoff, U.S.A. – *via skype or Webex*)

9:30-10:00 Solar Astrometry with Planet Transits (Marcelo Emilio, Univ. Estadual de Ponta Grossa, Brazil)

10:00-10:30 Characterizing hot Jupiters via transmission spectroscopy (P. Wilson Cauley, Univ. Colorado, U.S.A.)

10:30-11:00 Coffee break

11:00-11:30 Terrestrial exoplanets in the Habitable Zone (J. S. Jenkins, Univ. de Chile, Chile)

11:30-11:45 Sun-as-a-star Observations of the 2017 August 21 Solar Eclipse (Ekaterina Dineva, AIP, Germany)

11:45-12:00 Imaging the Solar Corona during the March 2015 Solar Eclipse at Low Frequencies using LOFAR (Aiofe Maria Ryan, TCD, Ireland)

12:00-12:30 Farewell