

2nd SOLARNET MEETING:

Solar and stellar magnetic activity

Palermo, 2 - 5 February 2015

Grand Hotel Piazza Borsa, Via dei Cartari, 18 Palermo



PRESENTATIONS

Feb 2, Morning

9:00-9:15 Welcome

1) Global properties of the solar magnetic field

9:15-10:45

(Inv) D. Mackay: [The Sun's Global Photospheric and Coronal Magnetic Fields](#)

P. Pagano: [MHD simulations of ejections of magnetic flux ropes](#)

(Inv) M. Dikpati: [Observation, data assimilation and simulation of global solar magnetic fields](#)

10:45-11:15 COFFEE BREAK and E-POSTER SESSION

Pagano Paolo - [Study on the polarization ratio technique for 3D reconstruction of CMEs](#)

Santos Angela - [Sunspot/Starspot cycle simulations: an empirical tool](#)

11:15-12:30

(Inv) M.K. Georgoulis: [Structure and Dynamics of the Solar Magnetic Atmosphere: Key Parameters and Properties](#)

S. Edwards: [Magnetic field configurations in the global corona and their implications for the solar wind](#)

Pastor Yabar Adur: [SDO/HMI Polar Fields](#)

Feb 2, Afternoon

2) Solar dynamo and its applications to other stars

14:00-15:15

(Inv) A. Brandenburg: The solar dynamo and its spots

Shetye Juie: [Observations and modelling of North-South asymmetries using Flux Transport Dynamo](#)

M. Stangalini, M.: On the predictability horizon of the solar activity cycle

15:15-15:45 COFFEE BREAK and E-POSTER SESSION

Romano Paolo: [High resolution observations of a forming penumbra](#)

Falco Mariachiarra: [Kinematics and magnetic properties of a light bridge in a decaying sunspot](#)

3) Solar differential rotation and meridional flow, stellar rotation

15:45-18:15

(Inv) A.S.Brun: [Convection And Dynamo Action In Sun-Like Stars Or The New Concept Of Spot-Dynamos](#)

(Inv) S. Barnes: [Stellar Rotation in the context of Solar and Stellar Magnetic Activity](#)

J. Warnecke: [Understanding the equatorward migration of the Sun's magnetic field](#)

M. Gaurat: [Evolution of an axisymmetric magnetic field in a differentially rotating radiative zone](#)

F. Giannattasio: [Superdiffusion of magnetic elements in the quiet Sun](#)

M. Stangalini: Non-linear propagation of kink waves to the solar chromosphere

Feb 3, Morning

4) Solar and stellar magnetic fields

9:00-10:30

(Inv) A. Reiners: [Observations of stellar dynamos](#)

S. L. Guglielmino: [Penumbra-like Structures as a Result of Flux Emergence](#)

(Inv) M. J. Martinez Gonzalez: [Small-scale solar surface fields](#)

10:30-11:00 COFFEE BREAK and E-POSTER SESSION

Guglielmino S.L.: Analysis of the magnetic properties and eruptive phenomena of a δ spot

11:00-12:35

Zacharias Pia: [Tracing flows in the solar atmosphere using the Bifrost stellar atmosphere code](#)

5) Activity and stellar properties;

(Inv) Philippe Gondoin: [Evolution of magnetic activity in young Sun-like stars](#)

S. Esteban Pozuelo: [Peeking at small-scale convection in sunspot penumbrae with high-resolution spectropolarimetry](#)

V. Polito: Joint high temperature observation of a small c6.5 solar flare with iris/eis/aia

Feb 3, Afternoon

14:00 -15:15

R. Bonito: [Jets from young stars reproduced in laboratory experiments with magnetic field](#)

L. Jouve: [Non-axisymmetric instabilities in differentially rotating stellar radiative zones](#)

(Inv) P. Testa: [Recent observational progress in understanding X-ray activity in late-type stars](#)

15:15-15:45 COFFEE BREAK and E-POSTER SESSION

Petralia A.: [Downfalling fragments from a solar eruption funneled by the magnetic field](#)

Guarcello M. G.: [Optical and X-ray variability of the pre-Main Sequence Stars in NGC 2264](#)

15:45-16:25

Korsos Marianna: [Role of sunspot group dynamics in flare and CME occurrence: A reliable new forecast](#)

Del Moro Dario: [On the advection of small magnetic elements on the photosphere.](#)

Feb 4, Morning

6) Seismic diagnostics of rotation and magnetic activity

9:00-10:30

(Inv) L. Gizon: Effect of magnetic activity and internal rotation on solar and stellar pulsations

Broomhall A. M.: [Helioseismic data as a global parameter of the Sun's magnetic activity cycle](#)

7) Sources of spectral and total solar irradiance variations

(Inv) Kok Leng Yeo, S. Solanki: [Solar magnetic activity and solar irradiance variability since 1978](#)

10:30-11:00 COFFEE BREAK and E-POSTER SESSION

Kretzschmar Matthieu - Homogeneous assessment of Solar spectral irradiance datasets

Chowdury Partha: A comparative study of solar facula during maximum and minimum phases of cycle 23

11:00-12:35

(Inv) I. Ermolli: [Mechanisms of irradiance variations](#)

Chowdhury P.: A study of north-south asymmetry of photospheric magnetic field during solar cycle 21-23

Roettenbacher R.: Ellipsoidal Variations and Gravity Darkening on Active Binary Stars

Feb 4, Afternoon

14:00 – 15:35

8) Synergies between solar and stellar research

(Inv) A. Shapiro: Solar variability in the stellar context

9) Stellar activity derived from high accuracy photometry

Alvarado Gomez J. D.: The Coronal Structure of the Sun-Like Exoplanet-Host GJ 3021

Amazo-Gomez E.: [Line profile variations in cool stars finding a physical correlation between Li abundance and Chromospheric activity: the host-planet search.](#)

Karoff Christoffer: Activity of Sun-like super flare host stars

20:00 SOCIAL DINNER AT OSTERIA DI BALLAR

Feb 5, Morning

9:00 – 10:30

(Inv) R. Garcia: [Stellar activity from the surface to the interior measured by CoRoT and Kepler](#)

(Inv) A. Lanza: [Stellar activity as derived from CoRoT and Kepler space-borne photometry](#)

Christian Knigge: [Low-mass and substellar donors in compact interacting binary systems](#)

10:30 – 11:00 COFFEE BREAK and E-POSTER SESSION

Altan Metin: [Spectral and magnetic similarities of Sun-like cataclysmic variables](#)

11:00 – 13:00 **Discussion, planning and conclusions**