EST SCIENCE MEETING
11 – 15 June, 2018
Giardini Naxos (Me), Italy

Monday, June 11

Session1: THE STATE-OF-THE-ART OF THE EST PROJECT
Chair: Ilaria ERMOLLI

9:00-9:30 Welcome
9:30-10:00 (**R**) Manuel COLLADOS VERA: *The EST status*
10:00-10:20 (**ST**) Hector SOCAS-NAVARRO: *EST Capabilities*
10:20-10:40 (**ST**) Christoph KUCKEIN: *EST Multi-wavelength diagnostics*

10:40-11:00 Coffee Break with Poster Session

11:00-11:20 (**ST**) Nazaret BELLO GONZALEZ: *Data centre activities — Towards an EST Science Data Centre*
11:20-11:40 (**ST**) Manuel COLLADOS VERA: *The Integral Field Units*
11:40 – 12:00 Carsten DENKER: *Collaborative research environment for high-resolution solar physics*
12:00 – 12:30 (**R**) Rolf SCHLICHENMAIER: *The Science Requirement Document (SRD): an overview*

12:30 -14:30 Lunch

Session 2: STRUCTURE AND EVOLUTION OF MAGNETIC FLUX
Chair: Georgia TSIROPOULA

14:30 – 15:00 (I**R**) Mark CHEUNG: *Physics and Diagnostics of Magnetic Flux Emergence*
15:00-15:20 (**ST**) Zhong LIU: *Observation of tiny flux tubes in the photosphere*
15:20-15:35 Dario DEL MORO: *The small scale magnetic elements on the photosphere: a turbulent story*
15:35-15:50 Oskar STEINER: *The quest of the horizontal magnetic field*
15:50-16:05 Dominik UTZ: *Characteristics of Magnetic Bright Points*

16:05-16:30 Coffee Break with e-Poster and Poster Session

16:30-16:45 Ilaria ERMOLLI: *The formation of a pore into a pre-existing coronal field*
16:45:17:00 Adur PASTOR YABAR: *Magnetic topology of the north solar pole*
17:00-17:30 (**R**) Luis BELLOT RUBIO: *SRD: Report from WG1*
17:30-18:30 DISCUSSION

Tuesday, June 12

Session 3: WAVE COUPLING THROUGHOUT THE SOLAR ATMOSPHERE
Chair: Michal SOBOTKA

8:45-9:15 (**IR**) Valery NAKARIAKOV: *Torsional Alfvén waves in magnetic flux tubes of the solar atmosphere*
9:15-9:30 David JESS: *The Magnetic Response of the Solar Atmosphere to Umbral Flashes*
9:30:9:45 Samuel GRANT: *Alfvén Wave Dissipation in the Solar Chromosphere*
9:45-10:00 Paolo PAGANO: *How much can the damping of the observed power spectrum of transverse waves contribute to coronal heating?*
10:00-10:15 Rekha JAIN: *Fast MHD waves in a cylindrical magnetic arcade and solar coronal loop oscillations*
10:15-10:30 Youra TAROYAN: *Flow-twist coupling in the solar atmosphere*

10:30-11:00 Coffee Break with e-Poster and Poster Session

11:00-11:15 Nikola Vitas: *Three-dimensional simulations of solar magneto-convection including effects of partial ionization*
11:15-11:30 Jiajia LIU: *Automated Swirl Detection Algorithm (ASDA) and Its Application to Simulation and Observational Data*
11:30-12:00 Mats CARLSSON: *SRD: Report from WG2*
12:00-13:00 DISCUSSION

13:00 -14:30 Lunch

Session 4: CHROMOSPHERIC DYNAMICS AND HEATING
Chair: Dan KISELMAN

14:30-15:00 (**IR**) Viggo HANSTEEN: *Modeling chromospheric heating and dynamics: What do we understand?*
15:00-15:15 Tanmoy SAMANTA: *Magnetic bright point dynamics and its relations to the generation of chromospheric jets*
15:15-15:30 Michal SOBOTKA: *Chromospheric heating by magneto-acoustic waves – a science case for EST*
15:30-15:45 Gary VERTH: *Analysis of 3D plasma motions in a chromospheric jet formed due to magnetic reconnection*
15:45-16:00 Kostas TZIOTZIOU: *A long-duration quiet-Sun small-scale vortex*

16:00-16:30 Coffee Break with e-Poster and Poster Session

16:30-16:45 Sergio Javier GONZÁLEZ MANRIQUE: *Temporal evolution of arch filaments as seen in He I 10830 Å*
16:45-17:00 Krzysztof RADZISZEWSKI: *High Cadence Observations of the solar flares in the Hα line*
17:00-17:30 (**R**) Ada ORTIZ CARBONELL: Report from WG3: Chromospheric dynamics, magnetism, and heating
17:30-18:30 DISCUSSION

Wednesday, June 13

Session 5: LARGE SCALE DYNAMIC STRUCTURES: SUNSPOTS, PROMINENCES AND FILAMENTS
Chair: Meetu VERMA

9:00-9:30 (**IR**) Nazaret BELLO GONZALEZ: *New insights on sunspot formation*
9:30:9:50 (**ST**) Dan KISELMAN: *Lessons from SST: What can EST learn?*
9:50-10:05 Salvo L. GUGLIELMINO: *Umbral filaments: a conundrum to be solved by the EST?*
10:05-10:20 Rolf SCHLICHENMAIER: *Absolute velocity measurements in sunspot umbrae*
10:20-10:35 Mariarita MURABITO: *3D structure, waves, and brightening in a large and mature spot*

10:35-11:00 Coffee Break with e-Poster and Poster Session

11:00-11:15 Jan JURCAK: *Chromosperic jets above sunspots*
11:15-11:30 Manuel COLLADOS VERA: *Observations of the uncoupling of ionized and neutral species in solar prominences*
11:30-12:00 (**R**) María Jesús MARTÍNEZ GONZÁLEZ: *SRD: Report from WG4*
12:00-13:00 DISCUSSION

13:00 – 14:30 Lunch

Afternoon: Excursion / Free afternoon

Thursday, June 14

Session 6: THE SOLAR CORONA
Chair: Dario DEL MORO

9:00-9:30 (**IR**) Daniele SPADARO: *Investigating the footpoints of the magnetically structured solar corona*
9:30-9:50 (**ST**) Stephanie YARDLEY: *Simulating the coronal evolution and eruption of bipolar active regions*
9:50:10:10 (**ST**) Luca GIOVANNELLI: *Parker's dilemma: Do flares provide enough energy to heat the quiet corona?*
10:10-10:25 Chris NELSON: *Observing the internal Kink Instability In the solar Corona using SDO/AIA*

10:25-10:45 Coffee Break with e-Poster and Poster Session

10:45-11:00 Pawel RUDAWY: *Preliminary results from a coronal oscillations instrument during the 2017 total eclipse*
11:00-11:15 Fabio REALE: *Impulsive coronal heating from large-scale magnetic rearrangements: observations with SDO/AIA*
11:15-11:30 Antonino PETRALIA: *Impulsive coronal heating from large-scale magnetic rearrangements: MHD modeling*
11:30-12:00 (**R**) Robertus ERDELYI: *Report from WG5: Coronal Science*
12:00-13:00 DISCUSSION

13:00 – 14:30 Lunch

Session 7: SOLAR FLARES AND ERUPTIVE FILAMENTS
Chair: Fabio REALE

14:30-15:00 (**IR**) Manolis GEORGOULIS: *Pre-Eruption Conditions in Solar Active Regions: Operations to Research and a Meaningful EST Role*
15:00-15:20 (**ST**) Kévin DALMASSE: *Solar flare initiation and signatures: what can EST tell us about the role of the magnetic field*?
15:20-15:35 Ondrej PROCHAZKA: *Modelling of Electron and Proton Beams in a White-light Solar Flare*
15:35-15:50 Christoph KUCKEIN: *High-resolution Ca II 8542 observations of an M-class solar flare*
15:50-16:05 Meetu VERMA: *Shear flows and head-on collision of new and pre-existing flux – On the origin of two X-class flares in NOAA 12673*

16:05-16:30 Coffee Break with e-Poster and Poster Session

16:30-16:45 Marianna KORSOS: *Pre-flare dynamics of the flaring Active Regions in the solar atmosphere*
16:45-17:00 Paolo Romano: Observation of magnetic reconnection around a 3D null point
17:00-17:30 (**R**) Lyndsay Fletcher: *SRD: Report from WG6*
17:30-18:30 DISCUSSION

Friday, June 15

Session 8: SCATTERING PHYSICS AND HANLE-ZEEMAN DIAGNOSTICS
Chair: Oskar STEINER

9:00-9:30 (**IR**) Roberto CASINI: *Experimental testing of scattering polarization models*
9:30:9:45 Nataliia SHCHUKINA: *Si I 1082.7 nm line as a probe of photospheric magnetic fields*
09:45-10:00 Ivan MILIC: *What can we learn from infrared Iron lines?*
10:00-10:15 Nikola VITAS: *The diagnostic value of the MnI spectral lines in the era of large solar telescopes*
10:15:10:30 Ernest ALSINA BALLESTER: *Magnetic sensitivity of the scattering polarization signal in the wings of the Ca I line at 4227 Å*

10:30-11:00 Coffee Break with e-Poster and Poster Session

11:00-11:30 (**R**) Luca BELLUZZI: *SRD: Report from WG7*
11:30-12:30 DISCUSSION
12:30-13:00 RECAP on the SRD and END OF THE EST SCIENCE MEETING

13:00-14:30 Lunch

14:30-17:00 Meeting of the Science Advisory Group