



## SWATNet Final Conference

TIME (local, CET+ 1 h)	SPEAKER	TOPIC
<b>Monday, 10 February</b>		
Chair: Emilia Kilpua		
09:00 - 09:15	Emilia Kilpua	Opening words
09:15 - 09:30	Alexander Nindos	Introduction
09:30 - 10:10	Lyndsay Fletcher (Keynote)	Observations of flares in the lower solar atmosphere
10:10 - 10:30	Augustin André-Hoffmann (ESR1)	Can sub-flaring activity in solar active regions warn us of imminent major events?
10:30 - 11:00	<b>Coffee &amp; Posters</b>	
Chair: Robertus Erdelyi		
11:00 - 11:30	Etienne Pariat (invited)	Magnetic helicity as a marker of solar eruptivity
11:30 - 11:50	Shifana Koya (ESR2)	Assessment of Near-Sun CME Axial Magnetic Field Using Helicity Budget and Its Application in CME Propagation Models
11:50 - 12:10	Shreeyesh Biswal (ESR3)	Time Series Analysis of PILs in pre-flaring ARs
12:10 - 13:40	<b>Lunch</b>	
Chair: Matti Ala-Lahti		
13:40 - 14:00	Guilherme Nogueira (ESR4)	Solar active region scaling laws revisited
14:00 - 14:30	Manuela Temmer (invited)	Connecting solar and in-situ properties of coronal mass ejections
14:30 - 15:00	Kamen Kozarev (invited)	Remote Sensing of Large-Scale Coronal Shocks, and Their Relation to Solar Energetic Particles
15:00 - 15:20	Poster presenters	~1 minute introductions
15:20 - 16:10	<b>Coffee &amp; Posters</b>	
Chair: Dario Del Moro		
16:10 - 16:40	Ilya Usoskin (invited)	Extreme solar eruptive events: Known and Unknown
16:40 - 17:10	Jiajia Liu (invited)	Applications of Machine Learning in Solar-Terrestrial Physics
17:10 - 17:30	Mayank Kumar (ESR5)	Numerical Experiment on the Influence of Granulation-Induced Waves on Solar Chromosphere Heating and Plasma Outflows in a Magnetic Arcade
<b>Tuesday, 11 February</b>		
Chair: Emilia Kilpua		
09:05 - 09:20	Robertus Erdelyi	Introduction
09:20 - 10:00	Victor Reville (Keynote)	Dynamic processes in the solar wind
10:00 - 10:30	Erika Palmerio (invited)	Leveraging Multipoint Observations and Modelling to Understand Solar Transient Events
10:30 - 11:00	<b>Coffee &amp; Posters</b>	
Chair: Stephan Heinemann		
11:00 - 11:20	Andreas Wagner (ESR6)	Magnetic Flux Rope Identification and Analysis in the Low Solar Corona
11:20 - 11:40	Lidiya Annie John (ESR7)	Particle acceleration in solar coronal shocks
11:40 - 12:10	Consuelo Cid Tortuero (invited)	Large values of solar wind density: filament material or interaction?
12:10 - 12:40	Nina Dresing (Invited)	Solar Energetic Particles studied within the SERPENTINE and SOLER projects
12:40 - 14:00	<b>Lunch</b>	
Chair: Alexander Nindos		
14:00 - 14:30	Pietro Zucca (invited)	Radio eyes for the Sun, Heliosphere and Ionosphere: Status and plans for the
14:30 - 14:50	Edin Husidic (ESR8)	Modelling Energetic Particle Transport in a Solar Coronal Flux Rope CME
14:50 - 15:20	Mateja Dumbovic (invited)	Challenges in understanding the evolution of CMEs from corona to heliosphere
15:20 - 15:30	Poster presenters	~1 minute introductions
15:30 - 16:15	<b>Coffee &amp; Posters</b>	
Chair: Kristof Petrovay		
16:15 - 16:45	Athanasios Papaioannou (Invited)	SPEARHEAD: Advancing High-Energy Particle Research
16:45 - 17:05	Simone Chierichini (ESR11)	CME Arrival Modelling with Machine Learning
17:05 - 17:45	Enrico Camporeale (Keynote)	The Machine Learning revolution in Space Weather forecasting
19:30 ->	<b>Conference Dinner</b>	
<b>Wednesday, 12 February</b>		
Chair: Emilia Kilpua		
09:45 - 10:00	Dario Del Moro	Introduction
10:00-10:30	Ute Amerstorfer (invited)	Modelling and automatic detection of ICMEs to enhance real-time space weather predictions
10:30 - 11:00	<b>Coffee &amp; Posters</b>	
Chair: Eleanna Asvestari		
11:00 - 11:30	Timo Asikainen (invited)	Space climate predictions from the viewpoint of solar effects on climate
11:30 - 11:50	Grégoire Francisco (ESR10)	Improving solar flare forecasting with deep learning
11:50 - 12:20	Michele Piana (invited)	Artificial Intelligence for the prediction of the may superstorm 2024 space weather events
12:20 - 14:00	<b>Lunch</b>	
Chair: Jens Pomoell		
14:00 - 14:30	Ronish Mugatwala (ESR9)	Probabilistic Drag Based Model (P-DBM) in Heliosphere: Data and Tools
14:30 - 14:50	Slava Bourgeois (ESR12)	Enhancing Solar Feature Detection and Exploring Activity Patterns with Mathematical Morphology
14:50 - 15:20	Simon Mackovjak (invited)	Most Extreme and Most Quiet Space Weather Periods of the Past 30 Years
15:20 - 15:30	Emilia Kilpua	Closing of science days



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TIME (local, CET+ 1 h)	SPEAKER	TOPIC
<b>Thursday, 13 February (DOCTORAL TRAINING)</b>		
<b>8:30 - 9:15</b>	<b>Breakfast</b>	
09:15 - 09:30	Emilia Kilpua / University of Helsinki	Opening words
09:30 - 10:00	Hannele Lahtinen / Business Finland	MSCA ITN funding and future opportunities
10:00 - 10:15	Minna Palander-Collin / Director of University of Helsinki Doctoral School	Doctoral Education Perspective
10:15 - 10:30	Paavo-Petri Ahonen / Ministry of Education and Culture	Doctoral Education Perspective
<b>10:30 - 11:00</b>	<b>Coffee</b>	
11:00 - 12:00	Panel discussion	Versatile & fast PhDs
<b>12:00 - 14:00</b>	<b>Lunch</b>	
14:00 - 14:05	Dario Del Moro / University of Rome Tor Vergata	Forewords
14:05 - 14:50	Balazs Asztalos / Hungarian Solar Physics Foundation	Observatory training
14:50 - 15:05	Sistemi	SWATNet training case with industry
15:05 - 15:15	Juhani Huovelin / Isaware Oy	Industry perspective
15:15 - 15:25	Michal Simoni / KuvaSpace	Industry perspective
<b>15:30 - 16:00</b>	<b>Coffee</b>	
16:00 - 17:00	Panel discussion	Industrial Exposure during PhDs
<b>Friday, 14 February (OUTREACH &amp; DISSEMINATION)</b>		
09:00- 09:15	Teresa Barata / University of Coimbra	Opening
09:15 - 10:30	Anastasiya Boiko / VaBo Consult	Co-creation workshop on the impacts of SWATNet
<b>10:30 - 11:00</b>	<b>Coffee</b>	
11:00 - 11:30	Eleanna Asvestari / University of Helsinki	Challenges of research communication
11:30 - 12:00	Panel Discussion	Challenges of research communication - lesson learnt
12:00 - 12:15	Emilia Kilpua / University of Helsinki	Closing

<b>POSTERS (Displayed Monday - Wednesday)</b>	
1	<b>Alexandr Afanasiev:</b> PARASOL: A novel simulation model for forecasting solar energetic particle events
2	<b>Eleanna Asvestari:</b> Modelling coronal magnetic fields and investigating the "missing open flux problem" with project SOFTCAT
3	<b>Kornél Császár (presented by Marianna Korsos):</b> Exploring Spatial and Temporal Patterns Across Solar Cycles: Focusing on Active Longitudes
4	<b>Farhard Daei:</b> Magnetohydrodynamic simulations of coronal active regions initialized by Data-driven time-dependent Magnetofrictional model
5	<b>Liam Edwards:</b> Comparing coronal densities and large-scale structure between solar rotational tomography and global 3D magnetohydrodynamic simulations
6	<b>Myrthe Flossie:</b> Modelling Electron Beams in Optimised Flux Rope CMEs
7	<b>Jan Gieseler:</b> Open-Source Python Tools for the Analysis of Energetic Solar Eruptions
8	<b>Ezgi Gülay:</b> Challenges in Detecting the Magnetic Switchbacks with Parker Solar Probe Observations
9	<b>Stephan Heinemann:</b> Quantifying Uncertainties in Solar Wind Forecasting Due to Incomplete Solar Magnetic Field Information
10	<b>Simon Mackovjak:</b> Prediction of Extreme Space Weather Events Using Vigil-like Data
11	<b>Seve Nyberg:</b> Simulating electron acceleration in shocks
12	<b>Jens Pomoell:</b> Time-dependent electrogram-driven modeling of the solar corona at global scales
13	<b>Daniel Price:</b> Comparing Twist Metrics for Ideal Flux Ropes
14	<b>Hannah Rüdiger:</b> ARCANE: An Operational Framework for Automatic Realtime ICME Detection in Solar Wind In Situ Data
15	<b>Ranadeep Sarkar:</b> Modelling the Sun-to-Earth Propagation of CMEs Using a Novel Flux-Rope Model
16	<b>Saara Takala:</b> Characterizing properties of solar eruptions with X-ray spectroscopy
17	<b>Ismo Tähtinen:</b> Straight Outta Photosphere: Open solar flux without coronal modeling
18	<b>Haopeng Wang:</b> Efficient and Quasi-realistic Magnetohydrodynamic Modeling of Coronal Mass Ejection Propagation and Evolution
19	<b>Brigitte Schmieder (presented by Haopeng Wang):</b> Estimation and Limits of MHD Simulations for Predicting Extreme Events
20	<b>Emilia Kilpua:</b> SWATNet project overview and ESR science highlights

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### Practical Information

**Venue:** University of Helsinki Banquet Room, Unioninkatu 33

**Contact:** Emilia.Kilpua@helsinki.fi / +358-50 415 5358

**Helsinki Public Transportation:** <https://www.hsl.fi/en>

**Tuesday Conference Dinner (7.30 pm):** Restaurant Meripaviljonki, Säästöpankinranta 3

**WIFI:** Eduroam or choose network HelsinkiUni (password: uniguest)