11th European Conference on Severe Storms

Bucharest, Romania

8 – 12 May 2023

Programme
## Programme overview – ECSS2023

<table>
<thead>
<tr>
<th>Time</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
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<td>OPENING SESSION</td>
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<td>3: Impact of storms on society, impact mitigation and early warning systems</td>
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<td>11: Collection of storm data, historical events and damage assessments</td>
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<td>5: Forecasting and nowcasting of severe weather</td>
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<td>8: Radar studies of storms and their environment</td>
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<td>10:15</td>
<td>9: Storm electrification, lightning, microphysics and hail</td>
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**On site registration desk opening hours:**
Sun 15:00 – 20:00
Mon 08:00 – 18:00
Tue – Fri starting at 08:30 until the end of the scientific programme

All printed programme information as of 24 April 2023. Please check the online programme on our webpage [www.ecss.eu](http://www.ecss.eu) for updates. Updates will also be provided via local announcements or tweets.

ECSS Twitter updates by @essl_ecss.
Please use the hashtag #ecss2023 for your tweets.
**Sunday, 7 May 2023**

**Location:** Conference Lobby and poster area

**15:00–20:00**

**Relaxed Sunday on site registration**

No cues, relaxed atmosphere.

You can already hang your poster for the Tuesday poster session.

**Location:** Sala Albastră

**Sunday evening side events**

18:00-19:00: Tutorial on “Media communication of meteorological content” by Alois M. Holzer (ESSL) – event fully booked.

19:00-20:00: Introductory lecture "From showers to a derecho. A demonstration of severe storm forecasting in contrasting environments" by Tomáš Púčik (ESSL) – event fully booked.

**Monday, 8 May 2023**

**Location:** Main Conference Room

**09:00–09:30**

**Opening session**

**09:30–12:30**

**Session 3**

**Impact of storms on society, impact mitigation and early warning systems**

09:30–10:00: ECSS2023-176
Severe Storms Research and Forecasting in Subtropical South (solicited)
Ribeiro, Bruno Z.

10:00–10:15: ECSS2023-2
Comparing probabilistic and dichotomous forecasts of hazardous events on a consistent basis: Toy statistical models applied to tornado forecasting
Brooks, Harold

10:15–10:30: ECSS2023-88
Toward the definition of “Medicane”
Miglietta, Mario Marcello and the COST Action on Mediterranean cyclones - initiative on the definition of Medicanes

10:30–10:45: ECSS2023-83
Severe Weather Impact Database and Impact-based Forecasts by Utilizing Machine-Learning Technology
Punkka, Ari-Juhani; Kämäräinen, Matti

11:30–11:45: ECSS2023-146
Lightning Fatalities in Europe (2001-2020)
Kühne, Thilo: Antonescu, Bogdan; Groenemeijer, Pieter; Püčik, Tomáš

11:45–12:00: ECSS2023-12
The risk of lightning strikes in stadiums: the example of football
Schmitt, Stéphane

12:00–12:15: ECSS2023-95
Guidelines for Satellite-based Nowcasting in Africa
De Coning, Estelle; Nietosvaara, Vesa

**Session 4**

**Flash floods**

12:15–12:30: ECSS2023-85
Real-time extremity assessment of rainfall observations and SINFONY forecasts for small hydrological catchments
Berndt, Christian; Bondy, Jan; Schultze, Markus; Blahak, Ulrich

12:45 Lunch break

14:30–18:15

**Session 10**

**Storm climatology, risk assessments and relation to climate change**

14:30–14:45: ECSS2023-160
Comparing CMIP6 Future Projections for Severe Convective Environments in a Warmed Climate over Australia, Europe and North America
Allen, John; Gopalakrishnan, Deepak; Cuervo-Lopez, Carlos; Trapp, Robert; Robinson, Eric

14:45–15:00: ECSS2023-98
Trends of thunderstorm activity and relation to large-scale atmospheric conditions in western and central Europe
Augenstein, Markus; Mohr, Susanna; Kunz, Michael

15:00–15:15: ECSS2023-104
Large-scale flow patterns and their relation to summer lightning in Europe
Ghasemifard, Homa; Groenemeijer, Pieter; Püčik, Tomas; Battaglioli, Francesco

15:15–15:30: ECSS2023-25
Do severe storms across Australia, Europe and the United States share similarities? A comparison of atmospheric profiles and environmental predictors
Taszarek, Mateusz; Allen, John; Nixon, Cameron; Dowdy, Andrew; Battaglioli, Francesco

15:30–15:45: ECSS2023-107
A climatology of drylines and dryline related convection in sub-tropical southern Africa
van Schalkwyk, Lynette; Blamey, Ross C.; Reason, Chris J. C.; Dyson, Liesl L.; Gijben, Morne
15:45–16:00: ECSS2023-11
Using convection-permitting simulations to assess future changes in lightning and hail in Europe
Kahraman, Abdullah; Kendon, Elizabeth; Fowler, Hayley; Wilkinson, Jonathan

16:00 Coffee break

16:45–17:00: ECSS2023-101
Reconstructing Long-Term (1950-2021) Trends in Convective Hazards using Additive Logistic Regression Models
Battaglioli, Francesco; Groenemeijer, Pieter; Pücki, Tomáš; Taszarek, Mateusz; Ulbrich, Uwe; Rust, Henning

17:00–17:15: ECSS2023-55
ENSO Modulation of U.S. Cloud-to-ground Lightning Activity
Malloy, Kelsey; Tippett, Michael; Koshak, William

17:15–17:30: ECSS2023-154
Reconstruction of tornado environments in Romania (1981-2020) using the ERA5 reanalysis
Cheval, Sorin; Antonescu, Bogdan; Andrei, Meda Daniela; Andrei, Simona; Manta, Robert-Daniel

17:30–17:45: ECSS2023-117
Derechos in Finland
Rauhala, Jenni

17:45–18:00: ECSS2023-56
Hail time series from radar proxies for decadal variability of hail in Switzerland
Wilhelm, Lena; Martius, Olivia; Schröer, Katharina; Schwierz, Cornelia

18:00–18:15: ECSS2023-15
Risk Assessment for Hail Damages to Buildings and Cars in Switzerland: Current Risk and Future Projections
Schmid, Timo; Bresch, David N.

18:30–20:30
Icebreaker reception
at the conference venue

Tuesday, 9 May 2023

Location: Main Conference Room
09:00–10:45

Session 11
Collection of storm data, historical events and damage assessments

09:00–09:30: ECSS2023-32
The Northern Tornadoes Project – Shifting the Post-Event Paradigm in Canada (solicited)
Sills, David; Kopp, Gregory

09:30–09:45: ECSS2023-29
Climatology of convective dust storms in Poland
Skop, Filip

09:45–10:00: ECSS2023-143
Damage survey, environment and storm-scale evolution of the giant hail and F4 tornado producing supercell on 24 June 2021
Pücki, Tomáš; Groenemeijer, Pieter; Singer, Miroslav; Ryva, David; Stanek, Miloslav; Pistotnik, Georg; Kaltenberger, Rainer; Holzer, Alois

10:00–10:15: ECSS2023-50
Citizen observations via smartphone in Belgium: data collection and applications
Reyniers, Maarten; Delobbe, Laurent; Watelet, Sylvain

10:15–10:30: ECSS2023-6
A machine learning approach to mitigate problems with estimated winds in severe thunderstorm wind damage reports
Gallus, William; Tirone, Elizabeth; Pal, Subrata; Dutta, Somak; Maitra, Ranjan; Newman, Jennifer; Weber, Eric

10:30–10:45: ECSS2023-151
The International Fujita Scale and its implementation
Groenemeijer, Pieter; Holzer, Alois M.; Kühne, Thilo; Pücki, Tomáš

10:45 Coffee break

11:30–13:00

Session 1
Convective storm and tornado dynamics

11:30–11:45: ECSS2023-13
How Mountains Alter Quasi-linear Convective System Dynamics and Tornado Potential
Lombardo, Kelly; Wu, Fan; Fenrich, Adisen

11:45–12:00: ECSS2023-17
A conceptual model for the development of tornado in the Po Valley
De Martín, Francesco; Davolio, Silvio; Miglietta, Mario Marcello; Levizzani, Vincenzo

12:00–12:15: ECSS2023-14
Supercell low-level mesocyclones: Origins of inflow and vorticity
Coffer, Brice; Parker, Matthew; Peters, John; Wade, Andrew

12:15–12:30: ECSS2023-100
Two Archetypes of Tornadic Quasilinear Convective Systems in the United Kingdom: Vortex Genesis and Maintenance
J. Buckingham, Ty; M. Schultz, David; M. Markowski, Paul; J. Trapp, Robert

12:30–12:45: ECSS2023-108
Idealized study of the interaction between squall lines and convective cells
Schielicke, Lisa; Pacey, George; Gatzen, Christoph; Pfahl, Stephan

11th European Conference on Severe Storms
12:45–13:00: ECSS2023-122
Towards a deeper understanding of the scale interactions between cold fronts and convection during the European warm-season
Pacey, George; Pfahl, Stephan; Schielicke, Lisa

13:00 Lunch break
Location: Sala Albastră
14:30–15:30
ECSS press briefing
Location: Main Conference Room

Session 1
Convective storm and tornado dynamics

16:45–17:00: ECSS2023-111
Tornado Thermodynamics Observations and the Boundary-layer Evolution and Structure of Tornadoes (BEST) Study
Kosiba, Karen; Wurman, Josh

17:00–17:15: ECSS2023-51
Supercell thunderstorms in complex topography - how lakes in mountain valleys can increase occurrence frequency
Feldmann, Monika; Rotunno, Richard; Germann, Urs; Berne, Alexis

17:15–17:30: ECSS2023-94
Does big CAPE equate to big tornado potential in supercell thunderstorms?
Peters, John M

17:30–17:45: ECSS2023-65
Can GNSS help satellite measurements for thunderstorm nowcasting?
Holl, Gerrit

17:45–18:00: ECSS2023-69
Severe hail in France: reconstruction of Storm Ela’s and June 2022 hailstorms
Panosetti, Davide; Allen, Christopher; Obaidullah, Yaqubi; Thollon, Orane

18:00–18:15: ECSS2023-40
Severe convection event in southeast of Bulgaria on 17th September 2022
Kostashki, Bilyana; Penchev, Rosen; Guerova, Guergana

Session 6
Severe weather forecaster training

P1: ECSS2023-96
EUMETSAT activities in training forecasters for using satellite data and applications
Strelec Mahović, Nataša; Nietosvaara, Vesa; Smiljanic, Ivan

P2: ECSS2023-127
Tornadic, hail and wind storms in Central Europe &dash; when to expect what: a case study of the severe weather outbreak on 20 May 2022
Beyer, Marcus; Wapler, Kathrin

Session 7
Satellite studies of storms and their environment

P3: ECSS2023-42
Estimates of the relationship among characteristics of severe convective storms, their cloud-top properties, and environmental parameters in Northern Eurasia
Chernokulsky, Alexander V.; Shikhov, Andrey; Yarinich, Yulia; Sprygin, Alexander

P4: ECSS2023-75
Enhance object-based thunderstorm nowcasting with the use of next-generation satellite data at DWD
Strube, Cornelia; Müller, Richard; Werner, Manuel

P5: ECSS2023-168
Global instability indices derived from EUMETSATs current and future hyperspectral Infrared sounding missions
Goukenleuque, Cedric; Stapelberg, Stefan; Crapeau, Marc; Hultberg, Tim

P6: ECSS2023-77
Generation of AI-based proxy radar data from GK2A/AMI data in East Asia
Park, Ki-Hong; Lee, Heeyong; Sohn, Eunha

P7: ECSS2023-133
State-of-the-art Total Column Water Vapour Retrievals for Improved Characterization of Pre-convective Environments
El Kassar, Jan Riad; Carbajal Henken, Cintia; Preusker, Rene

Session 8
Radar studies of storms and their environment

P8: ECSS2023-26
Giant hail in Poland produced by a supercell merger in extreme instability
Matczak, Patryk; Piasecki, Krzysztof; Taszarek, Mateusz; Czernecki, Bartosz; Skop, Filip; Sobisiak, Adrian

P9: ECSS2023-35
Analysis of severe weather detection in the metropolitan area of Korea using X-Band weather radar
Park, Jin-woo; Mo, Sun-Jin; Gu, Ji-Young; Lee, Seungwoo

Tuesday posters
Location: Poster area
Attendance time: 14:30–16:00
P10: ECSS2023-36
Convective objects detection using computer vision based on radar images
Mo, Sun-Jin; Park, Jin-woo; Gu, Ji-Young; Lee, seungwoo

P11: ECSS2023-110
Mobile S-band and Bistatic Networks for Severe Storms
Wurman, Joshua; Kosiba, Karen

P12: ECSS2023-112
Overview of the PERiLS (Propagation, Evolution and Rotation in Linear Storms) Project
Kosiba, Karen; Wurman, Josh; Trapp, Jeff; Nesbitt, Steve; Parker, Matt

P13: ECSS2023-113
Fine-Scale Hurricane Boundary Layer Structure
Kosiba, Karen; Wurman, Josh

P14: ECSS2023-114
The Flexible Array of Radars and Mesonets (FARM)
Wurman, Joshua; Kosiba, Karen; Trapp, Jeff; Nesbitt, Steve

P15: ECSS2023-116
Analysis of Tornadic Storm in Southern Moravia on 24th June 2021 Based on Polarimetric Doppler Weather Radar and Lightning Detection Data
Novak, Petr; Kyznanová, Hana

P16: ECSS2023-123
Analysis of splitting supercell storm based on the Doppler weather radar data
Barakova, Denitsa; Dimitrova, Tsvetelina; Georgiev, Stefan; Kadiyska, Nadezhda

P17: ECSS2023-149
A derecho in northern Europe
Rauhala, Jenni

P18: ECSS2023-161
The climatology of supercell thunderstorms across Poland based on multisource data
Piasecki, Krzysztof; Taszarek, Mateusz; Surowiecki, Artur; Pilguj, Natalia

Session 9
Storm microphysics, electrification, lightning and hail

P19: ECSS2023-4
The Belgian Lightning Location System (BELLS)
Poelman, Dieter

P20: ECSS2023-163
Will hail be severe? Elusive Environmental Predictors Generating Large Hail
Allen, John: Nixon, Cameron; Kumjian, Matthew; Taszarek, Mateusz

P21: ECSS2023-102
Operational hail forecasting in Greece
Papavasileiou, Georgios; Kotroni, Vasiliki; Lagouvardos, Konstantinos; Giannaros, Theodore M.

P22: ECSS2023-115
Selective simulated seeding on hailstorms – a summertime case study over Switzerland
Papaevangelou, Nikolaos; Lohmann, Ulrike; Ferrachat, Sylvaine

P23: ECSS2023-124
Pre-storm environments and storm-scale properties of the major hailstorms of 2021 and 2022 in Europe.
Pucik, Tomas; Groenemeijer, Pieter; Taszarek, Mateusz; Battaglioli, Francesco

P24: ECSS2023-130
Radar-based Hail Detection and Hail Size Estimation at DWD. Schultze, Markus; Wilke, Tabea; Berndt, Christian

P25: ECSS2023-162
ACCuReSy Project- targeting the aerosol-cloud interactions within convective environments in Romania
Andrei, Simona; Pîrloaga, Razvan; Adam, Mariana; Tudor, Alexandru; Piticar, Adrian; Antonescu, Bogdan

P26: ECSS2023-170
The Northern Hail Project: A renaissance in hail research in Canada
Brimelow, Julian C.; Kopp, Gregory A.; Sills, David M.L.

Session 10
Storm climatology, risk assessments and relation to climate change

P27: ECSS2023-3
Trends of sounding-derived indices and observations in NE Italy in the last 30 years
Manzato, Agostino (Tino); Fasano, Gabriele; Cicogna, Andrea; Sioni, Francesco; Pucillo, Arturo

P28: ECSS2023-43
Assessment of extremes hazards during thunderstorm in France 2000-2019
Bertrand, Nathalie; Gaonac’h, Adrien

P29: ECSS2023-136
An updated tornado climatology and associated meteorological environments in Greece
Sioutas, Michalis; Dafis, Stavros; Papavasileiou, George; Doe, Robert

P30: ECSS2023-70
Enhanced climatology of large hail in the UK: Radar-derived diurnal cycle and storm mode
Wells, Henry; Hillier, John; Garry, Freya; Dunstone, Nick; Chen, Huili; Kahraman, Abdullah; Keat, William; Clark, Matthew

P31: ECSS2023-24
Severe convective events in Russia: observed changes based on various data
Chernokulsky, Alexander V.

P32: ECSS2023-9
Tornadoes in France since 1900: A chronology and spatial analysis.
Lacroix, Matthieu; Gunnell, Yanni; Kermadi, Saiiday
Wednesday, 10 May 2023

Location: Main Conference Room
09:00–13:00

Session 5
Forecasting and nowcasting of storms

09:00–09:30: ECSS2023-34
Marginal Tornado Environments: Tipping the Balance (solicited)
Anderson-Frey, Alexandra

09:30–09:45: ECSS2023-21
Nowcasting severe weather using geostationary satellite data and GLM-based lightning trends of thunderstorm cells
Erdmann, Felix; Poelman, Dieter R.

09:45–10:00: ECSS2023-59
Nowcasting thunderstorm hazards with radar polarimetry using deep learning
Rombeek, Nathalie; Leinonen, Jussi; Hamann, Ulrich

10:00–10:15: ECSS2023-44
On the Use of Helicity in Tornado Forecasting
Davies-Jones, Robert

10:15–10:30: ECSS2023-21
Current status of SINFONY - the combination of Nowcasting and Numerical Weather Prediction on the convective scale at DWD
Blahak, Ulrich and the Team SINFONY

10:30–10:45: ECSS2023-147
Using land surface information to improve nowcasts of mesoscale convective systems in West Africa
Klein, Cornelia; Anderson, Seonaid; Taylor, Christopher; Cole, Steven; Abdoulahat, Diop

10:45 Coffee break

11:30–11:45: ECSS2023-178
New convective guidance at the Australian Bureau of Meteorology
Warren, Rob; Richter, Harald; Blockley, Ivor; Sgarbossa, Dean

11:45–12:00: ECSS2023-20
SALAMA: A Machine Learning approach for lightning forecasting through post-processing of simulation data
Yousefnia, Kianusch; Bölle, Tobias; Zobisch, Isabella

12:00–12:15: ECSS2023-67
Predictions of Severe Weather with Random Forests and the Global Ensemble Forecast System
Hill, Aaron; Schumacher, Russ

12:15–12:30: ECSS2023-84
Recent developments in convection forecasting at ECMWF
Tsonevsky, Ivan; Groenemeijer, Pieter; Battaglioli, Francesco; Půčik, Tomáš
### Conference programme

#### Wednesday, 11 May 2023

**12:30–12:45:** ECSS2023-126
Typical setups and characteristics of strong tornadic storms in Central Europe shown by the tornado outbreak on 20 May 2022
Beyer, Marcus; Wapler, Kathrin

**12:45–13:00:** ECSS2023-89
Influence of the Orography of West-Central European Low Mountain Ranges on the Intensity of Deep Moist Convection
Sperschneider, Aaron; Bott, Andreas

**14:00–14:40**
Conference photo being taken at the conference venue

**14:40–18:00**
Guided tour through the Palace of the Parliament OR the city centre of Bucharest

**19:30–23:30**
Conference dinner and giving of Nikolai Dotzek Award

**10:30–12:00**
Session 7
Satellite studies of storms and their environment

#### Thursday, 11 May 2023

**09:30–09:45:** ECSS2023-58
Detection of Differential Reflectivity columns using operational c-band radar and their relation to hail probability and size in Switzerland
Aregger, Martin; Martius, Olivia; Hering, Alessandro; Germann, Urs

**09:45–10:00:** ECSS2023-93
Comparison of hail detection techniques using dual-pol radar observations in Belgium
Watelet, Sylvain; Delobbe, Laurent; Reyniers, Maarten

**10:00–10:15:** ECSS2023-109
Observations of Severe-Wind Driven and other Wildfires with DOWs
Wurman, Joshua; Kosiba, Karen

**10:15–10:30:** ECSS2023-157
A derecho-like event in the southern part of Romania: 20th of July 2011
Cheval, Sorin; Manta, Daniel-Robert; Sipos, Zotan; Mihulet, Eugen

**10:30–10:45:** ECSS2023-79
Understanding the evolution of storms embedded in MCSs and associated three-dimensional structures using remote sensing observations
Tupsoundare, Manisha; Deshpande, Sachin; Feng, Zhe; Das, Subrata Kumar; Deshpande, Medha; Hanmante, Harshad

**10:45 Coffee break**

**11:30–13:00**
Session 8
Radar studies of storms and their environment

#### 11th European Conference on Severe Storms
12:45–13:00: ECSS2023-131
Operational water-vapour products at EUMETSAT, latest evaluation in pre-convective situations and future plans
August, Thomas; Wagner, Tim; Spezzi, Loredana; Hultberg, Tim; Bozzo, Alessio; Crapeau, Marc

13:00 Lunch break

Location: Sala Albastră
14:30–16:00
**Side event:**
**EUMETSAT CWG splinter meeting**

14:30
Session 2
Numerical modelling of storms, storm-scale data assimilation

16:45–17:00: ECSS2023-66
Testing very high-resolution simulations in a high-impact static convective system in Spain using HARMONIE-AROME model
Calvo-Sancho, Carlos; González-Alemán, Juan Jesús; Martin, Yago; Calvo, Javier; Martin, Maria Luisa; Martín Pérez, Daniel; Viana Jiménez, Samuel

16:45–17:00: ECSS2023-53
Estimation of storm life-cycle by machine learning to enhance ensemble nowcasting of cell objects
Josipovic, Lukas; Berndt, Christian; Blahak, Ulrich

17:00–17:15: ECSS2023-33
A modeling case study of a severe hail storm in complex topography
Brennan, Killian P.; Sprenger, Michael; Arpagaus, Marco; Walser, André; Wernli, Hein

17:00–17:15: ECSS2023-76
Identification of convective precipitation events through lightning data in a Mediterranean area
Cipolla, Giuseppe; Treppiedi, Dario; Francipane, Antonio; Noto, Leonardo Valerio

17:15–17:30: ECSS2023-92
What is a Mesocyclone?
Kumjian, Matthew; Lombardo, Kelly; Coffer, Brice; Dahl, Johannes

17:45–18:00: ECSS2023-28
thundeR - a rawinsonde package for processing convective parameters and visualizing atmospheric profiles
Taszarek, Mateusz; Czernicki, Bartosz; Szuster, Piotr

**END OF THURSDAY ORAL PROGRAMME**

**Thursday posters**

Location: Poster area
Attendance time: 14:30–16:00

**Session 1 Convective storm and tornado dynamics**

P1: ECSS2023-53
Estimation of storm life-cycle by machine learning to enhance ensemble nowcasting of cell objects
Josipovic, Lukas; Berndt, Christian; Blahak, Ulrich

P2: ECSS2023-76
Identification of convective precipitation events through lightning data in a Mediterranean area
Cipolla, Giuseppe; Treppiedi, Dario; Francipane, Antonio; Noto, Leonardo Valerio

P3: ECSS2023-92
What is a Mesocyclone?
Kumjian, Matthew; Lombardo, Kelly; Coffer, Brice; Dahl, Johannes

P4: ECSS2023-7
Modelling fire-generated thunderstorms: Pedrógão Grande case study
Couto, Flavio T.; Filippi, Jean-Baptiste; Baggio, Roberta; Salgado, Rui

P5: ECSS2023-8
Ability of the new high-resolution atmospheric reanalysis ALADIN/PERUN to simulate heavy convective precipitation
Bliznak, Vojtech; Zacharov, Petr

P6: ECSS2023-31
Reconstruction of violent tornado environments in Europe: High-resolution dynamical downscaling of ERA5
Pilguj, Natalia; Taszarek, Mateusz; Kryza, Maciej; Brooks, Harold

P7: ECSS2023-105
Impact of mountains on environments and estimated precipitation intensity of supercells
Kvak, Robert; Zacharov, Petr; Okon, Luboslav; Bliznak, Vojtech; Meri, Ladislav; Kaspar, Marek

P8: ECSS2023-138
Tornado in Czech Republic - an ICON-RUC case study
Ulbrich, Sven; Zschenderlein, Philipp; Rempel, Martin; de Lozar, Alberto; Pucik, Tomas; Blahak, Ulrich

**Session 3**
Impact of storms on society, impact mitigation and early warning systems

P9: ECSS2023-155
The impact of dry thunderstorms in Southwestern Romania
Brâncus, Mihaela; Burada, Cristina; Drîga, Florin
P10: ECSS2023-18
Toward a dedicated warning system of severe storms in Italy: the PRETEM project
De Martin, Francesco; Carlon, Nicola; Pavan, Federico; Carpentari, Sebastiano; Giauzzi, Marco; Peressutti, Gianandrea; Miglietta, Mario Marcello; Davolio, Silvio

P11: ECSS2023-82
CHMI Forecasters Supported by a Team of Convective Experts
Valachová, Michaela; Adamovský, Martin; Tomču, Radek; Piskala Gvoďiková, Blanka

P12: ECSS2023-141
Tailoring SINFONY forecasts and other DWD products to flood forecasting applications following a co-design approach
Keller, Julia H.; Berndt, Christian; Blahak, Ulrich; Bondy, Jan; Fundel, Vanessa; Schmidt, Malte

Session 4
Flash floods

P13: ECSS2023-68
Characteristics and environments of flash-flood-producing storms in the UK
Clark, Matthew

P14: ECSS2023-78
Precipitation products tailored to the user needs: a clustering-based approach that combines ensemble information and reduces data volume. Schmidt, Malte; Bondy, Jan; Fundel, Vanessa; Blahak, Ulrich

P15: ECSS2023-97
Using dual-polarimetric radar moments to improve the precipitation estimate over Germany
Gottschalk, Matthias; Hengstebeck, Thomas

P16: ECSS2023-152
Radar-based extreme rainfall analysis for small areas
Goudenhoofdt, Edouard

Session 5
Forecasting and nowcasting of storms

P17: ECSS2023-23
The extreme phenomena from the end of June 2021 and the variations of the planetary boundary layer height, in Moldavia region
Cosmina, Apetroaie; Ingrid-Mihaela, Miclaus; Diana-Corina, Bostan; Adrian, Timofte; Marius-Mihai, Cazacu

P18: ECSS2023-49
Object-based Ensemble Prediction System KONRAD3D-EPS
Josipovic, Lukas; Pante, Gregor; Schnoor, Isabel; Brechtel, Andreas; Blahak, Ulrich

P20: ECSS2023-73
A New Ensemble System at DWD for Seamless Short-Term Forecasts of Convective Precipitation
Rempel, Martin; Schultz, Markus; Blahak, Ulrich

P21: ECSS2023-121
Addressing spatial uncertainty of convection in thunderstorm forecast verification
Jurkovic, Jadran; Soljan, Vinko

P22: ECSS2023-125
Combining GNSS meteorology and Instability Indices for derivation of classification functions in South Central Bulgaria.
Slavchev, Martin; Guerova, Guergana; Dimitrova, Tsvetelina

P23: ECSS2023-38
A Deep Learning approach for MCS detection: application for storm tracking and nowcasting
Arnould, Gabriel; Montmerle, Thiibaut; Moissselin, Jean-Marc; Rottner, Lucie

P24: ECSS2023-39
Supercell interactions with surface baroclinic zones in the Carpathian Basin
Komjáti, Kornél; Csirmaz, Kálmán; Breuer, Hajnalka; Kurcsics, Máté; Horváth, Ákos

P25: ECSS2023-41
Hailstorm in Eastern Croatia - analysis and forecasting potential by convection-permitting numerical model
Renko, Tanja; Malecic, Barbara; Mikuž Jurkovic, Petra; Kozaric, Tomislav; Horvath, Kristian

P26: ECSS2023-45
Severe thunderstorm in the central part of Croatia on 15th September 2022
Mikus Jurkovic, Petra; Kozaric, Tomislav; Kalin, Lovro; Renko, Tanja; Pirak, Tomislav

P27: ECSS2023-48
Integrating KONRAD3D into the nowcasting guidance system NowCastMIX at DWD
Deberthhäuser, Michael; James, Paul; Werner, Manuel

P28: ECSS2023-54
DWD-Crowdsourcing: Are User Reports beneficial for Object-based Nowcasting?
Spitzer, Arne; Kempf, Harald; Jerg, Matthias; Werner, Manuel; Blahak, Ulrich

P29: ECSS2023-62
Predictions of convective cells from nowcasting, numerical forecasting and a combination of both Schnoor, Isabel; Brechtel, Andreas; Josipovic, Lukas; Pante, Gregor; Posada, Rafael; Feige, Kathrin; Keller, Julia; Blahak, Ulrich

P30: ECSS2023-72
Development and Evaluation of Operational Lightning Forecasting System based on Lightning Detection Network
Son, MyoungJae; Kim, Hae-Lim; Nam, Kyung-Yeub

P31: ECSS2023-86
A Case study - Splitting Supercells over Berlin on July 10, 2020
Feige, Hendrik; Horn, Christian; Gatzen, Christoph

P32: ECSS2023-103
Forecasting Large Hail using Additive Logistic Regression Models and the ECMWF Reforecasts
Battaglioli, Francesco; Groenemeijer, Pieter; Tsondevsky, Ivan; Púčik, Tomáš
P33: ECSS2023-119
Overview of Recent Advancements in Convective Storm Nowcasting in the Czech Hydrometeorological Institute
Kyznarova, Hana; Novak, Petr

P34: ECSS2023-128
Identifying predictors of large hail, severe convective wind gusts, and tornadoes across Europe and North America: towards the development of global convective hazard models.
Battaglioli, Francesco; Pucik, Tomas; Groenemeijer, Pieter; Taszarek, Mateusz

P35: ECSS2023-129
Exceptionally heavy rainfall in Karlovo valley
Markova, Boryana; Kleshtanova, Viktoria; Kirilova, Anastasiya

P36: ECSS2023-148
Analysis of the high-end derecho in Corsica in 2022
Kreitz, Michael; Gatzen, Christoph; Pucik, Tomáš

P37: ECSS2023-150
Operational usage of KONRAD3D, DWD’s scheme for detection, tracking, and nowcasting of convective cells
Werner, Manuel; Feger, Robert; Josipovic, Lukas; Böhme, Tim

P38: ECSS2023-158
van der Velde, Oscar and the ESTOFEX Team

P39: ECSS2023-166
Analysis and application of CNN to improve deterministic optical flow nowcasting at DWD
Friedrich, Ulrich

P40: ECSS2023-167
Evaluation of ESTOFEX convective outlooks from 2007 to 2021. Part 2: climatology and reliability of threat level polygons
Taszarek, Mateusz; Groenemeijer, Pieter; Pucik, Tomas; van der Velde, Oscar; Dafis, Stavros

P41: ECSS2023-169
Stormforecast.eu: real-time automated forecasts for hail and lightning based on post-processed NWP
Groenemeijer, Pieter; Battaglioli, Francesco; Pucik, Tomáš

Session 11
Collection of storm data, historical events and damage assessments

P42: ECSS2023-106
Revisiting the unusual period of F4/F5 tornadoes in Europe from 1965 to 1971
Schyns, Jerome; Gatzen, Christoph; Schielicke, Lisa

P43: ECSS2023-5
Drone-based hail observations and the retrieval of the hail size distribution after a supercell passage in summer 2021 in Switzerland
Lainer, Martin; Brennan, Killian; Kopp, Jérôme; Monhart, Samuel; Wolfensberger, Daniel; Hering, Alessandro; Schauwecker, Zaira

P44: ECSS2023-19
Unique observational data from an automatic hail sensors network in Switzerland
Kopp, Jérôme; Manzato, Agostino; Martius, Olivia; Germann, Urs; Hering, Alessandro

P45: ECSS2023-80
A Verification of Hail Proxies with Insurance Data
Fischer, Jannick; Kunz, Michael

Friday, 12 May 2023
Location: Main Conference Room
09:00–10:45

Session 9
Storm microphysics, electrification, lightning and hail

09:00–09:30: ECSS2023-91
Does Low-level Vertical Wind Shear Matter for Hail Production? (solicited)
Kumjian, Matthew; Lombardo, Kelly; Nixon, Cameron; Allen, John

09:30–09:45: ECSS2023-22
Implementing physical assumptions about nonspherical hailstone shapes
Lin, Yuzhu; Kumjian, Matthew R.

09:45–10:00: ECSS2023-30
Combining convection-permitting reanalysis with satellite overshooting top detections for investigating hailstorm environments over south-central Europe
Giordani, Antonio; Kunz, Michael; Bedka, Kristopher M.; Punge, Heinz Jürgen; Paccagnella, Tiziana; Di Sabatino, Silvana

10:00–10:15: ECSS2023-63
Deep Learning for Hail Size Estimation Using Polarimetric Radar Data
Forcadell, Vincent; Augros, Clotilde; Dedieu, Kevin; Caumont, Olivier

10:15–10:30: ECSS2023-165
Microphysical evolution of thunderstorms in tropical environments associated with gigantic jet production using CM1
van der Velde, Oscar; Montanyà, Joan; López, Jesús; Mansell, Ted

10:30–10:45: ECSS2023-74
Analysis of Hail Characteristics and Detection of Hail Pre-Signal based on 3-dimensional Radar Data
Jung, Woomi; Ye, Bo-Young; Son, MyoungJae; Suk, Mi-Kyung; Gho, Ik-Hyun

10:45 Coffee break
Session 6
Severe weather forecaster training
11:30–11:45: ECSS2023-140
SIFT - An interactive tool for satellite data visualisation and analysis
Meraner, Andrea; Strandgren, Johan; Joro, Sauli

11:45–12:00: ECSS2023-145
EUMETSAT-ESSL Testbeds and Workshops for Meteosat Third Generation User Preparation
Holzer, Alois M.; Groenemeijer, Pieter; Půčik, Tomáš; Bojinski, Stephan; Strelec-Mahovic, Natasa

12:00–13:00
Session 7
Satellite studies of storms and their environment
12:00–12:15: ECSS2023-47
Observing deep convection with NASA’s TROPICS mission
Bennartz, Ralf; Chen, Ruiyao; Blackwell, Bill; Leslie, Vince

12:15–12:30: ECSS2023-46
The effects of warm and cold core eddy processes on cyclone activity
Barbosa, Humberto; Buriti, Catarina; Buriti, Catarina

12:30: Collection of ballots
Votes for favourite poster and talk are being collected.

The ECSS is kindly supported by:

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NIKOLAI DOTZEK AWARD LECTURES
12:30–12:45: ECSS2023-174
Toward the Development of Hailstorm Climatologies Derived from Reanalyses and Infrared/Passive Microwave Satellite Imagers
Bedka, Kristopher; Scarino, Benjamin; Itterly, Kyle; Spangenberg, Douglas; Homeyer, Cameron; Allen, John; Bang, Sarah; Cecil, Daniel

12:45–13:00: ECSS2023-172
The Impact of Convective Storms on Global Atmospheric Transport Processes
Wang, Pao K.

13:00–13:30
Closing and Conference Awards Session
Organizing the ECSS is a statutory purpose of the