# 8<sup>th</sup> European Conference on Severe Storms

Wiener Neustadt, Austria

14 - 18 September 2015

# Programme



**European Conference on Severe Storms** 

### Sunday, 13 September 2015

Location: Sidemeeting room

17:00-19:00

SE1: ESSL General Assembly (by

invitation only)

19:00-20:30

SOE1: Publishing your conference presentation - workshop by Prof. David Schultz

### Monday, 14 September 2015

Location: Ballroom

09:00-09:30

**SE-2: Opening Session** 

09:30-10:45

**NWP: Numerical Weather Prediction** 

Chairperson: K. Mulder

09:30-10:00: ECSS2015-9

Simulation of historic European tornado events using the 20th Century Reanalysis

Brooks, Harold; Hoogewind, Kimberly; Gensini, Vittorio

10:00-10:15: ECSS2015-24

HyMeX IOP2b: observations and numerical simulations of a supercell over the Friuli-Venezia Giulia region (northeastern Italy)

Miglietta, Mario Marcello; Manzato, Agostino; Rotunno, Richard

10:15-10:30: ECSS2015-185

Model Error Impacts on High Resolution Ensemble Forecasts of Low-Level Rotation in the 31 May 2013 El Reno, Oklahoma Supercell

**Skinner, Patrick**; Wicker, Louis; Potvin, Corey; Mansell, Edward

10:30-10:45: ECSS2015-82

Comparison of 3-km analyses and forecasts from WRF-LETKF and WRF-EAKF ensembles

**Potvin, Corey**; Wheatley, Dustan; Knopfmeier, Kent; Wicker, Louis; Ladwig, Therese

Discussion

### 10:45 Coffee break

11:30-12:00: ECSS2015-5

The Interaction between QLCSs and Marine Atmospheric Boundary Layers

Lombardo, Kelly

12:00-12:15: ECSS2015-167

Utilizing radar-derived rotation tracks for verifying model-simulated rotation in convection-permitting ensemble forecasts

Dawson, Logan; Trapp, Robert; Romine, Glen; Baldwin, Michael

12:15-12:30: ECSS2015-149

Summer hailstorms over Switzerland in 2012-2014 - observed and simulated.

Martynov, Andrey; Nisi, Luca; Martius, Olivia

12:30-12:45: ECSS2015-135

The squall line of 4th October 2007 over the Western Mediterranean: attributing its predictability Carrió Carrió, Diego; Homar Santaner, Víctor

12:45-13:00: ECSS2015-118

Data Assimilation of Ice-Water Mixing Ratios Estimated from Polarimetric Radar Observation

Yamaguchi, Kosei; Furuta, Kohei; Nakakita, Eiichi

### 13:00 Lunch break

### 14:30-15:45

### **NOF: Nowcasting and Forecasting**

Chairperson: C. Gatzen

14:30-14:45: ECSS2015-92

Severe windstorms in Croatia in 2015

Strelec Mahovic, Natasa

14:45-15:00: ECSS2015-25

The EFI for forecasting severe convection

Tsonevsky, Ivan

15:00-15:15: ECSS2015-42

NowCastMIX – optimized automatic warnings from continuously monitored nowcasting systems based on fuzzy-logic evaluations of storm attributes

James, Paul; Reichert, Bernhard; Heizenreder, Dirk

15:15-15:30: ECSS2015-52

Exploring high-vertical resolution data sources for use in NearCasting

Petersen, Ralph; Cronce, Lee; Aune, Robert; Line, William

15:30-15:45: ECSS2015-154

Post-processing methods for probabilistic convection forecasts based on the limited-area ensemble COSMO-DE-EPS of DWD

Wiegand, Lars; Gebhardt, Christoph

### **Discussion**

### 15:45 Coffee break

### 16:30-16:45: ECSS2015-77

Discriminating downburst-producing and hail-bearing thunderstorms using total lightning and weather radar observations

**Rigo, Tomeu**; Aran, Montse; Bech, Joan; Farnell, Carme; Mateo, Jordi; Pineda, Nicolau; Ripoll, Ricard; Serra, Aleix

### 16:45-17:00: ECSS2015-153

Assessment of reanalysis-derived parameters as dichotomous predictors and neural network inputs for forecasting thunderstorms in Finland

Ukkonen, Peter; Mäkelä, Antti

### 17:00-17:15: ECSS2015-73

Cb-LIKE – Thunderstorm forecasts up to six hours with fuzzy logic

Köhler, Martin

### 17:15-17:30: ECSS2015-80

Fully automated thunderstorm warnings and operational nowcasting at MeteoSwiss

**Hering, Alessandro**; Nisi, Luca; Della Bruna, Guido; Gaia, Marco; Nerini, Daniele; Ambrosetti, Paolo; Hamann, Ulrich; Trefalt, Simona; Germann, Urs

### 17:30-17:45: ECSS2015-13

Nowcasting of Thunderstorm and Intense Rainfall events using dual Pol Radar and IWV-GPS

**Toledo Machado, Luiz Augusto**; V. Mattos, Enrique; L. Medina, Bruno; Sapucci, Luiz F.

### 17:45-18:00: ECSS2015-168

Nowcasting of heavy precipitation in the Alpine region: identification of optimal thresholds for alerts through statistical investigations (withdrawn)

**Panziera, Luca**; Gabella, Marco; Ambrosetti, Paolo; Berne, Alexis; Germann, Urs

Discussion

**END OF ORAL PROGRAMME NOF** 

18:30-20:30

SOE2: Icebreaker Reception

Welcome Addresses by:

LOC Chair Alois M. Holzer, ESSL Director of Operations

Landesrat Dr. Stephan Pernkopf, Member of the Provincial Government, on behalf of the Governor of Lower Austria, Dr. Erwin Pröll

Vizebürgermeister Dr. Christian Stocker, Deputy Mayor of the City of Wiener Neustadt, on behalf of the Mayor of the City of Wiener Neustadt, Klaus Schneeberger

### Tuesday, 15 September 2015

Location: Ballroom

09:00-13:00

**CLIM: Climatology** 

Chairperson: J. Dahl

09:00-09:15: ECSS2015-139

Interannual variability in recent data of the European

Severe Weather Database

**Groenemeijer, Pieter**; Kühne, Thilo; Pucik, Tomas; Tijssen, Lars; Westermayer, Anja; Holzer, Alois M.

09:15–09:30: ECSS2015-165 Convective wind gusts in Germany

Mohr, Susanna; Kunz, Michael; Kosch, Julia

09:30-09:45: ECSS2015-181

Analysis of a 18-year climatology of German derechos **Gatzen, Christoph**; Andreas, Fink; Joaquim, Pinto; David, Schultz

Schultz

09:45-10:00: ECSS2015-11

Mesocyclones in Central Europe as seen by Radar **Wapler, Kathrin**; Hengstebeck, Thomas; Groenemeijer,

Pieter

10:00-10:15: ECSS2015-143

Severe Hail over the United States and its Relationship to the Climate System

Allen, John; Tippett, Michael; Sobel, Adam

10:15-10:30: ECSS2015-166

An Evaluation of Predictions of Convective Environments using the Climate Forecast System Version 2 - Methods and Results

Stepanek, Adam; Trapp, Robert; Baldwin, Michael

10:30-10:45: ECSS2015-65

A refined assessment of recent trends in hail frequency and intensity in France

Berthet, Claude; Dessens, Jean; Sanchez, Jose-Luis

Discussion

10:45 Coffee break

11:30-11:45: ECSS2015-105

On the role of synoptic scale processes in severe local storm outbreaks

Doswell III, Charles; Shafer, Chad

11:45–12:00: ECSS2015-140 Tornado Outbreaks in Europe Tijssen, Lars; Groenemeijer, Pieter

12:00-12:15: ECSS2015-33

Climatology of severe convective storm environments

from ERA-interim

Tilev-Tanriover, Seyda; Schultz, David M.; Kadioglu,

Mikdat

12:15-12:30: ECSS2015-156

Identification of thunderstorms in reanalysis data and development of a statistical convective initiation model **Westermayer**, **Anja**; Groenemeijer, Pieter; Pistotnik, Georg; Sausen, Robert; Faust, Eberhard

12:30-12:45: ECSS2015-138

The representation of (severe) thunderstorm environments in Europe using different reanalysis datasets.

**Pucik, Tomas**; Tijssen, Lars; Groenemeijer, Pieter; Westermayer, Anja

12:45-13:00: ECSS2015-130

Tornadoes in Europe: Risk and vulnerability assessment **Antonescu, Bogdan**; Schultz, David M.; Mulder, Kelsey; Vaughan, Geraint

**END OF ORAL PROGRAMME CLIM** 

13:00 Lunch break

Location: Sidemeeting room

15:00 - 16:00

SE3: Press Conference

**Initial Statements by:** 

Mag. Thomas Krennert, Member of the Local Organizing Committee, ZAMG Vienna (Moderator)

Dr. Pieter Groenemeijer, ESSL Director, ECSS Organizer

Dr. Bogdan Antonescu, Co-Chair of the Scientific Programme Committee

Dr. Harold Brooks, NSSL, USA

Stadtrat DI Franz Dinhobl, City of Wiener Neustadt

Location: Ballroom

16:30-18:00

**SAT: Satellite** 

Chairperson: K. Lombardo

### 16:30-16:45: ECSS2015-10

Early detection of thunderstorms using satellite and radar observations

Hamann, Ulrich; Clementi, Lorenzo; Gabella, Marco; Germann, Urs; Hering, Alessandro M.; Nisi, Luca; Sassi,

Marco

### 16:45-17:00: ECSS2015-74

Meteosat-based Characterization of the Initiation and Growth of Severe Convective Storms over Central Europe **Senf, Fabian**; Deneke, Hartwig

### 17:00-17:15: ECSS2015-106

Validation of the NearCast product over Europe during summer season 2015

**Smiljanic, Ivan**; Strelec Mahovic, Natasa; Petersen, Ralph

### 17:15-17:30: ECSS2015-51

Evaluating Properties of Intense Storms using MSG SEVIRI Observations and Derived Microphysical Properties

Mecikalski, John; Manzato, Agostino; Rosenfeld, Danny; Combs, Jerry

### 17:30-17:45: ECSS2015-14

Observations of Severe Storms from One-Minute GOES Imagery in the U.S. (withdrawn)

Lindsey, Daniel; Bikos, Dan; Schmit, Timothy

### 17:45-18:00: ECSS2015-3

Details of storm top evolution in experimental 2.5-minute MSG rapid scan data

Setvak, Martin; Wang, Pao

**Discussion** 

### **END OF ORAL PROGRAMME SAT**

Location: Poster Area

### **Poster Session 1**

Attendance Time: 14:30-16:00

### P1: ECSS2015-1

An analysis of the meteorological parameters related to the waterspout development in the southern Adriatic Sea **Renko, Tanja**; Strelec Mahović, Nataša; Irha, Hela

### P2: ECSS2015-4

Mesoscale Convective Complex over Central Mediterranean on 20th September 2014

Šoljan, Vinko; Mikuš Jurković, Petra, and Renko, Tanja

### P3: ECSS2015-12

Characterisation of severe convective events using a multi-data approach

Wapler, Kathrin; Pardowitz, Tobias; Senf, Fabian

### P5: ECSS2015-17

Analysis of an intense tropical-like cyclone over the western Mediterranean Sea through a combined modeling and satellite approach

Miglietta, Mario Marcello; Cerrai, Diego; Laviola, Sante; Cattani, Elsa; Levizzani, Vincenzo; Kim, Wanhee; Park, Seon K.; Cassardo, Claudio; Ricchi, Antonio; Carniel, Sandro

### P6: ECSS2015-21

Development and verification of a real-time stochastic precipitation nowcasting system in Belgium

Foresti, Loris; Reyniers, Maarten; Delobbe, Laurent

### P7: ECSS2015-30

Long-term variability of thunderstorms and thunderstorm precipitation in southern Poland

Bielec-Bakowska, Zuzanna

### P8: ECSS2015-31

Thailand riverine flood risk modeling and loss quantification from re/insurance perspectives

Hu, Xiaoting; **Yin, Jianming**; Murakami, Taro; Sasajima, Yuto; Ogane, Yoshiaki

### P9: ECSS2015-34

Storm-Scale Ensemble Forecasts for the 2015 NOAA HWT Spring Forecasting Experiment: Comparison between Cycled EnKF and 3DVAR Ensembles

Kong, Fanyou; Xue, Ming; Jung, Youngsun; Brewster, Keith

### P10: ECSS2015-38

Climatological analysis of tornado events in Bulgaria during the period 2001-2014

Bocheva, Liliya; Simeonov, Petio

### P11: ECSS2015-40

Nowcasting of the hail storms with the COSMO NWP model

Sokol, Zbynek; Pesice, Petr

### P12: ECSS2015-41

Regional distribution of torrential convective precipitation in Bulgaria (1990-2014)

**Nikolova, Tsveta**; Bocheva, Lilia; Simeonov, Petio; Marinova, Tania

### P13: ECSS2015-45

Instabilities and eddy systems in the upper atmosphere Simon, Werner

### P14: ECSS2015-46

Effect of frictional rain dissipation on hurricane intensity **Sabuwala, Tapan**; Gioia, Gustavo; Chakraborty, Pinaki

### P15: ECSS2015-50

Development of a Coupled GOES-R Legacy Sounding NearCast with Convective Initiation Products to Improve Convective Weather Nowcasts

Mecikalski, John; Cronce, Lee; Petersen, Ralph

### P17: ECSS2015-54

On the impact and benefits of AMDAR Water Vapor Observations to forecasts of hazardous weather events **Petersen, Ralph**; Cronce, Lee; Mamrash, Richard; Baker, Randy; Hoover, Brett

#### P18: ECSS2015-55

An automated system for detection and short-range forecast of convective clouds with the use of Meteosat multispectral imagery

Kolios, Stavros

### P19: ECSS2015-58

Trends and variability of joint distribution extreme climate indices over Thessaly plain, Greece

**Nastos, Panagiotis T.**; Matsangouras, Ioannis T.; Lazogiannis, Kostas; Poulos, Serafim

### P20: ECSS2015-59

Numerical investigation of severe convective weather using COSMO.GR model: A case study of tornado over western Greece on February 7, 2013

**Matsangouras, Ioannis**; Avgoustoglou, Euripides; Nastos, Panagiotis T.; Pytharoulis, Ioannis; Tzeferi, Theodora; Gofa, Flora; Bluestein, Howard B.

### P21: ECSS2015-61

3DVAR analysis for the 13 June 2014 Hailstorm Event around the Tokyo Metropolitan Area using Radial Velocity from Doppler Radar and Lidar

**Shimose, Ken-ichi**; Shimizu, Shingo; Suzuki, Shin-ichi; Shusse, Yukari; Maesaka, Takeshi; Kieda, Kaori; Iwanami, Koyuru

### P22: ECSS2015-64

Interactions between Oscillating Pacific-Japan Patterns and Summertime Wave Patterns associated with Tropical-cyclone Tracks over the Western North Pacific **Ko, Ken-Chung**; Liu, Jyun-Hong

### P23: ECSS2015-67

An extended perspective for Deep Moist Convective Initiation in the Alpine Region?

Krennert, Thomas; Kainz, Astrid; Serafin, Stefano

### P24: ECSS2015-69

Storms with very heavy showers and hail in Basque Country: 23 June 2014 case.

**Gaztelumendi, Santiago**; Egaña, Joseba; Martija, Maialen; Palacio, Virginia

### P25: ECSS2015-70

Heavy convective precipitation forecast using COSMO-CZ-EPS

Zacharov, Petr; Řezáčová, Daniela

### P26: ECSS2015-75

Thunderstorm and precipitation nowcasting system for Pulkovo airport

**Bazlova, Tatiana**; Bocharnikov, Nikolay; Iakimainen, Nadezhda; Solonin, Alexander; Zamorin, Igor

#### P27: ECSS2015-76

The evaluation of the operative QPF of convective rainfalls over the Czech territory

Řezáčová, Daniela; Zacharov, Petr; Brozkova, Radmila

#### P28: ECSS2015-83

Sensitivity of idealized supercell simulations to horizontal grid spacing: Implications for Warn-on-Forecast

Potvin, Corey; Flora, Montgomery

### P29: ECSS2015-89

Modelling of flash flood on small catchment

Pesice, Petr; Sokol, Zbynek

### P30: ECSS2015-90

Sounding-derived parameters associated to tornadic storms in Catalonia

Rodriguez, Oriol; Bech, Joan

### P31: ECSS2015-94

Environments supporting warm season nocturnal convection initiation during the Plains Elevated Convection at Night experiment

Marquis, James; Wurman, Josh; Kosiba, Karen

### P32: ECSS2015-97

Evolution of atmospheric humidity flux from the SIRGAS-CON Network during five consecutive severe storms near to the Andes Range

Calori, Andrea; Brunini, Claudio; Santos, Jorge Ruben; Hierro, Rodrigo; Blanco, Magalí; Llamedo, Plablo; Pessano, Horacio; Alexander, Pedro; **de la Torre, Alejandro** 

### P33: ECSS2015-100

Detection and Understanding of the role of Split Cold Fronts in the Generation of Severe Convective Storms **Koch, Steven** 

### P34: ECSS2015-102

Large-Scale Conditioning for Enhanced Severe Convective Storm Risk

Hamilton, David; Bachiochi, David

### P35: ECSS2015-104

Refined tornado climatology of France **Wesolek, Emmanuel**; Mahieu, Pierre

### P36: ECSS2015-115

An analysis of the Northern Hemisphere severe convective environment in the ERA-Interim re-analysis and CMIP5 models

Russell, Andrew

### P37: ECSS2015-119

Basic Development of Urban Meteorological Model Based on Large-Eddy Simulation for Investigation on Convection Genesis

Yamaguchi, Kosei; Takami, Kazuya; Nakakita, Eiichi

### P38: ECSS2015-120

Mature convection distribution over Europe based on 6-years Meteosat observations of anvils and overshooting tops.

Kaňák, Ján

### P39: ECSS2015-123

ManUniCast: A Real-Time Weather and Air-Quality Forecasting Portal and App for Teaching

**Schultz, David**; Anderson, Stuart; Fairman, Jonathan; Lowe, Douglas; McFiggans, Gordon; Lee, Elsa; Seo-Zindy, Ryo

### P40: ECSS2015-132

Comparison of ERA-interim reanalysis-derived proxy soundings with Collocated Radiosonde Observations **Tilev-Tanriover**, **Şeyda**; Antonescu, Bogdan

#### P41: ECSS2015-136

Comparison of sounding observations and reanalyses of thunderstorm environments

**Westermayer, Anja**; Pucik, Tomas; Groenemeijer, Pieter; Tijssen, Lars

### P42: ECSS2015-137

Impacts of KITCube extra observations on the prediction of the HyMeX IOP13 severe weather event Homar Santaner, Víctor; Carrió Carrió, Diego; Corsmeier, Ulrich

### P43: ECSS2015-134

Proximity soundings of severe and non-severe thunderstorms in Central Europe

**Pucik, Tomas**; Groenemeijer, Pieter; Ryva, David; Kolar, Miroslav

### P44: ECSS2015-141

The long series of storm days in Northern and Central Europe and their dependence on the synoptic conditions **Grabowska**, **Katarzyna**; Popławska, Joanna; Grabowski, Tomasz

### P45: ECSS2015-144

The Tornado Climatology of Australia 1795-2014 **Allen, John**; Allen, Edwina

### P46: ECSS2015-161

The ESSL Testbed: Forecaster training and evaluation of forecast and nowcast tools

**Groenemeijer, Pieter**; Holzer, Alois M.; Pucik, Tomas; Taszarek, Mateusz

### P47: ECSS2015-169

Characteristics of overshooting tops as seen by Meteosat - selected cases in 2014 over Slovenia Irsic Zibert, Mateja; Zibert, Janez

### P48: ECSS2015-177

A climatology of cloud-to-ground lightning for the period 2002-2013 in Poland based on PERUN lightning detection network

Taszarek, Mateusz; Czernecki, Bartosz; Kozioł, Aneta

### P49: ECSS2015-178

Heavy rainfall in Kochi accompanied by two typhoons Sassa, Koji; **Yoshimura, Kotaro** 

### P50: ECSS2015-182

Tornado Climatology of Poland Taszarek, Mateusz; Brooks, Harold

### P51: ECSS2015-186

Spatial Verification Methods for Ensemble Forecasts of Low-Level Rotation in Supercells

**Skinner, Patrick**; Wicker, Louis; Wheatley, Dustan; Knopfmeier, Kent

### P52: ECSS2015-191

The origin of central European prefrontal summer-time convergence lines

Fischer, Jannick; Dahl, Johannes

### P53: ECSS2015-192

Dual-Polarization Hail Signatures above the Melting Layer in Thunderstorms

Hunzinger, Alexis; Ortega, Kiel L.; Snyder, Jeffrey C.

### **END OF POSTER PROGRAMME**

### Wednesday, 16 September 2015

Location: Ballroom

09:00-12:30

## FORE: National efforts at forecasting, warning and research

Chairperson: D. Schultz

09:00-09:45

The Future of Tornado Forecasting and the Role of the

NWS Storm Prediction Center

Carbin, Greg

09:45-10:10: ECSS2015-101

Recent Developments and Future Plans for Fundamental Research at the NOAA National Severe Storms Laboratory

Koch, Steven

10:10-10:25: ECSS2015-187

Exceptional Rainfall over Nottinghamshire, 23 July 2013 - An Operational Meteorologist's Perspective

Suri, Dan

10:25-10:40: ECSS2015-127

Assessment of Severe Weather Warning Systems in

Europe

Holzer, Alois M.; Groenemeijer, Pieter; Púčik, Tomáš; Nissen, Katrin; Becker, Nico; Ulbrich, Uwe; Vajda, Andrea; Gregow, Hilppa; Juga, Ilkka; van Gelder, Pieter H. A. J. M.; Morales-Napoles, Oswald; Paprotny, Dominik

10:40 Coffee break

11:30-11:45: ECSS2015-7

Review of the meteorological extremes in 2014 and 2015 in Croatia

Renko, Tanja

11:45-12:00: ECSS2015-164

Seamless probablistic forecast on severe storms

Wang, Yong

12:00-12:15: ECSS2015-114

A severe bow echo in Western Germany on June 9, 2014: Forecasting and warning of a high impact weather event

with the help of different tools and methods

Beyer, Marcus; Tuschy, Helge

12:15-12:30: ECSS2015-160

Ingredients for Effective Severe Weather Satellite

Training

Kerkmann, Jochen; Nietosvaara, Vesa

**END OF ORAL PROGRAMME FORE** 

12:30-14:00

SE4: Panel Discussion:

What is missing in severe storms forecasting in Europe?

### **Social Events**

15:00-17:00

SOE3: Classical guided walking tour of Wiener Neustadt

Meeting point at 15:00: Main square (Hauptplatz) at the entrance of Hotel Zentral

15:00-17:00

SOE4: "Tornado of 1916" guided walking tour

Meeting point at 15:00: Main square (Hauptplatz) at the bus station (near Hotel Zentral)

14:30-18:30

SOE5: Train ride to the old Hungarian town of Sopron

Meeting point at 14:30: Main train station, platform 21

14:30-18:30

SOE6: Swim and relax in the Asia Therme Linsberg spa

Meeting point at 14:30: Shuttle bus stop Grazer Strasse

19:00-23:00

**SOE7: Conference dinner** 

Venue: Sparkassensaal (ECSS venue)

### Thursday, 17 September 2015

Location: Ballroom

09:00-12:45

STORM: Storms, supercells and tornadoes

Chairperson: B. Antonescu

09:00-09:45

Confronting the effects of surface drag on severe storms using numerical simulations

Bryan, George

09:45-10:00: ECSS2015-95

How does surface drag affect the development of near-surface vertical vorticity in supercell thunderstorms?

Markowski, Paul; Richardson, Yvette

10:00-10:15: ECSS2015-22

Origin of Vertical Vorticity in Misocyclones along a Tornadic Narrow Cold Frontal Rainband in the United Kingdom

Mulder, Kelsey; Schultz, David

10:15-10:30: ECSS2015-99

Upscale feedbacks associated with supercellular thunderstorms sampled during MPEX

Trapp, Robert; Woznicki, Joseph

10:30-10:45: ECSS2015-111

Barotropic and baroclinic contributions to the mid-level mesocyclone

Dahl, Johannes

**Discussion** 

### 10:45 Coffee break

### 11:30-11:45: ECSS2015-163

Microphysical Pathways to Heavy Convective Rainfall **Lasher-Trapp, Sonia**; Blyth, Alan; French, Jeff; Leon, David

11:45-12:00: ECSS2015-103

High-frequency Mobile Radar Measurements of Tornado Boundary Layer Flow

Weiss, Christopher; Cermak, Timothy; Reinhart, Anthony; Skinner, Patrick

### 12:00-12:15: ECSS2015-176

The senstivity of convection initiation to the wind shear, lapse rate, and relative humidity in the active cloud-bearing layer **Houston, Adam** 

12:15-12:30: ECSS2015-96

Topography and vertical velocity of air in relation to severe storms near the Southern Andes Mountains

**de la Torre, Alejandro**; Pessano, Horacio; Hierro, Rodrigo; Santos, Jorge Ruben; Llamedo, Pablo; Alexander, Pedro

12:30-12:45: ECSS2015-190

Formation of intense atmospheric vortices: evidence from idealized numerical simulation

**Odell, Luke**; Tripoli, Gregory; Trevorrow, Scott; Buker, Marcus

Discussion

END OF ORAL PROGRAMME STORM

### 12:45 Lunch break

Location: Sidemeeting room

14:30-18:00

SE5: CWG Splinter Meeting (by invitation only)

Location: Ballroom

16:30-18:00

LI: Lightning

Chairperson: S. Lasher-Trapp

16:30-16:45: ECSS2015-48

Surprising sensitivity of lightning and related storm processes to environment on 4 June 2012 in West Texas **Sullivan, Vanna**; Bruning, Eric; Ancell, Brian; Reinhart, Anthony

16:45-17:00: ECSS2015-188

Statistical study of lightning flash properties and thunderstorm charge structures inferred from the Lightning Mapping Array

van der Velde, Oscar; Montanyà, Joan; Pineda, Nicolau

17:00-17:15: ECSS2015-28

Lightning in NE Italy and their weekly cycle

Manzato, Agostino (Tino); Cicogna, Andrea; Pucillo,

17:15-17:30: ECSS2015-147

Study of Lightning Flashes Based on Distinct Observation Data Sets Recorded During the HyMeX SOP1

**Vergeiner, Christian**; Defer, Eric; Schulz, Wolfgang; Pack, Stephan; Rison, William

17:30-17:45: ECSS2015-88

Characteristics of Thunderstorm Activity and Parameters of Lightning in the South of Russia

Adzhiev, Anatoly; **Boldyreff, Anton**; Kuliev, Dalhat; Kondratyeva, Natalia; Chochayev, Khizir

17:45-18:00: ECSS2015-142

Relationship between SYNOP observations and PERUN lightning detection network in Poland for the period 2002-2013

**Taszarek, Mateusz**; Czernecki, Bartosz; Konarski, Jerzy; Kolendowicz, Leszek

Discussion

**END OF ORAL PROGRAMME LI** 

18:30-19:30

SE6: ECSS Video Session

Location: Ballroom

### **Poster Session 2**

Attendance Time: 14:30-16:00

### P1: ECSS2015-6

Comparative hailpad analysis between Croatia and

Greece

Počakal, Damir; Foris, Dimitrios

#### P2: ECSS2015-8

Analysis of lightning activity over Central Europe for the period 2008-2014

Mikus Jurkovic, Petra; Strelec Mahovic, Natasa

#### P3: ECSS2015-16

Severe Thundershowers Over the Central Part of Latvia on 29 July 2014

Avotniece, Zanita; Smite, Santa

### P4: ECSS2015-18

An EF3 multi-vortex tornado over southern Italy: a retrospective analysis by means of observations, pictures and videos

Miglietta, Mario Marcello; Rotunno, Richard

### P5: ECSS2015-20

Extended radar-based hail detection testing over the Czech territory

Skripniková, Kateřina; Kyznarová, Hana; Novák, Petr

### P6: ECSS2015-26

Case study of severe convective storms over western Bulgaria: flash floods and extreme hail on 08 July 2014 **Bocheva, Liliya**; Dimitrova, Tsvetelina; Atanasov, Atanas; Penchev, Rosen; Gospodinov, Ilian; Simeonov, Petio; Petkov, Stanimir

### P7: ECSS2015-27

Possible occurrence of tornado near Teplice in northern Bohemia in May 2011

Tomšů, Radek

### P8: ECSS2015-29

Three Body Scatter Spike (TBSS) observed in Bulgaria – analysis of reflectivity and radial velocity signature (withdrawn)

Dimitrova, Tsvetelina; Dlmitrov, Rumen

### P9: ECSS2015-32

Is there a difference in the environmental conditions at the development of severe and non-severe hailstorms over Bulgaria?

**Markova, Boryana**; Mitzeva, Rumjana; Dimitrova, Tsvetelina; Atanasov, Atanas

### P10: ECSS2015-39

Use of GNSS water vapour for severe weather studies in Bulgaria: hail and heavy rain in 2012

Guerova, Guergana; Slavchev, Martin; **Mitzeva Rumjana**; Dimitrova, Tsvetelina; Simeonov, Tzvetan

### P11: ECSS2015-43

Development and verification of a lightning nowcast in the nowcasting system INCA-BE

Reyniers, Maarten

### P12: ECSS2015-47

Relation of radar and hail parameters in the continental part of Croatia

Počakal, Damir

### P13: ECSS2015-57

Close-range observations of tornado activities made with a dual-polarization, X-Band, mobile Doppler radar in urban area of Athens, Greece

**Matsangouras, Ioannis**; Kalogiros, Ioannis; Nastos, Panagiotis T.; Anagnostou, Marios N.; Pytharoulis, Ioannis; Bluestein, Howard B.

#### P14: ECSS2015-60

Tornado numerical analysis: A case study of EF3 and EF4 tornadoes over Arkansas on April 27, 2014

**Matsangouras, Ioannis**; Nastos, Panagiotis T.; Pytharoulis, Ioannis; Bluestein, Howard B.

### P15: ECSS2015-63

Characteristics of time series data of wind velocity observed by anemometers when the gust occurred **Tanimoto, Saki**; Araki, Keiji; Fukuhara, Takaaki

### P16: ECSS2015-66

A long-lived supercell in Alpine environment Scheffknecht, Phillip; **Serafin, Stefano**; Grubi¨i?, Vanda

### P17: ECSS2015-68

Storm with anomalous movement in Bilbao area: 28 August 2013 case.

Egaña, Joseba; **Gaztelumendi, Santiago**; Palacio, Virginia; Martija, Maialen

### P18: ECSS2015-71

A tornado in Basque Country?: the 23 june 2014 case. **Gaztelumendi, Santiago**; Egaña, Joseba; Etxezarreta, Arkaitz; Maruri, Mercedes; Martija, Maialen; Aranda, José Antonio; Anitua, Pedro

### P19: ECSS2015-72

Radar Signatures of hail during 2013 Convective Severe Storms in the Basque Country.

Maruri, Mercedes; Martija, Maialen; Egaña, Joseba; Etxezarreta, Arkaitz; **Gaztelumendi, Santiago**; Aranda, José Antonio; Anitua, Pedro

### P20: ECSS2015-79

Plains Elevated Convection at Night (PECAN): Preliminary Analyses of Severe Surface Wind Production during the Transition from Daytime-to-Nocturnal Convection

Wurman, Josh; Kosiba, Karen

### P21: ECSS2015-85

Exploring the sensitivity of supercell forecasts to initial condition resolution

Potvin, Corey; Murillo, Elisa M.

### P22: ECSS2015-86

A violent tornado in mid-18th century Germany: the Genzmer Report

Feuerstein, Bernold; Kühne, Thilo

### P23: ECSS2015-87

Analysis of the 30 May 2014 tornadic storm in Vilabella, Catalonia

**Bech, Joan**; Castán, Salvador; Arús, Joan; Pascual, Ramon; Cuevas, Gabriela; Rigo, Tomeu; Pineda, Nicolau; Montanyà, Joan; van der Velde, Oscar

### P24: ECSS2015-91

The Influence of Weather on the Atmospheric Electric Field Variations

**Adzhiev, Anatoly**; Boldyreff, Anton; Daurova, Zaira; Kuzmin, Vladimir; Kupovykh, Gennady

### P25: ECSS2015-93

Investigating the potential of using X-band polarimetric parameters to detect could-to-ground lightning in the warm season in Kanto region, Japan

**Sakurai, Namiko**; Shimizu, Shingo; Shusse, Yukari; Iwanami, Koyuru; Suzuki, Shin-ichi; Maesaka, Takeshi; Kieda, Kaori

### P26: ECSS2015-98

The impact of global warming on extreme precipitation of two metropolitan regions in Southeastern Brazil **Cavalcanti, Iracema**; Nunes, Luci

### P27: ECSS2015-107

Radar based Analysis of convective storms: Detecting mesocyclonic rotation and depicting paths of severe cells **Hengstebeck, Thomas**; Heizenreder, Dirk

#### P28: ECSS2015-110

The LEWP event of Januari 03 th 2012 in the Netherlands **R.M. Groenland, Robertus**; Boonstra, Rutger; Rondinel, Ricardo

### P29: ECSS2015-112

Analysis of seemingly unphysical vertical vorticity evolution along simulated outflow trajectories Vande Guchte, Andrew; **Dahl, Johannes** 

### P30: ECSS2015-113

Initial observations from the Kinematic Texture and Lightning (KTaL) Experiment

Bruning, Eric; **Sullivan, Vanna**; Salinas, Vicente; Berkseth, Samantha; Ware, Philip; Weiss, Stephanie

### P31: ECSS2015-35

A severe bow echo in Western Germany on June 9, 2014: Aspects in forecasting and the use of latent heat nudging to optimize regional models

Tuschy, Helge; Beyer, Marcus

### P32: ECSS2015-117

Composite Analysis on Structure of Tornado-spawning Tropical Cyclones Using CAPE Including the Effects of Entrainment

Sueki, Kenta; Niino, Hiroshi

### P33: ECSS2015-124

The Tornado-Arbeitsgruppe Deutschland (TAD) - Introducing a work group in the field of tornadoes in Germany

Kollmohr, Andreas; Kühne, Thilo; Dirksen, Erik; Hubrig, Martin

### P34: ECSS2015-125

Magnitude assessments of historical severe weather events in Lower Austria (1713-1754)
Pfeifer, Katrin; **Holzer, Alois M.** 

### P35: ECSS2015-126

Sounding-derived characteristics associated with some supercell storms over the Gauteng Province of South Africa

Rae, Kevin; Dyson, Liesl

### P36: ECSS2015-131

Ealy teories on tornado formation in Europe **Antonescu**, **Bogdan** 

### P37: ECSS2015-133

Radar study of a convective storm with splitting cells in a mountainous region above Central Germany **Böhme, Tim** 

### P38: ECSS2015-145

Tornado occurrence in Greece: Influencing variables and spatio-temporal variations

**Sioutas, Michalis**; Dafis, Stavros; Papavasileiou, George; Doe, Robert

### P39: ECSS2015-146

EF - Scale enlargement for wooden plants **Hubrig, Martin** 

### P40: ECSS2015-150

Characteristics of the supercell causing Saitama tornado on 2 September 2013

Sassa, Koji; Furuta, Yasuko; Miyajima, Akiko

### P41: ECSS2015-151

Hail formation in pre-frontal environments: A long-term study over Switzerland

Schemm, Sebastian; Nisi, Luca; **Martynov, Andrey**; Martius, Olivia

### P42: ECSS2015-152

Size and intensity of vortex structures in a simulated idealized supercell as seen from the kinematic vorticity number

Schielicke, Lisa; Nevir, Peter; Ulbrich, Uwe

### P43: ECSS2015-155

Ten-year lightning patterns in Catalonia using Principal Component Analysis

**Aran, Montse**; Peña, Juan Carlos; Pineda, Nicolau; Soler, Xavier; Pérez-Zanón, Nuria

### P44: ECSS2015-157

Hail frequency in Europe based on overshooting cloud top detections filtered for hail-specific atmospheric conditions **Punge, Heinz Jürgen**; Kunz, Michael; Bedka, Kristopher M

### P45: ECSS2015-158

Hail probability in Central Europe related to orographic characteristics

**Kunz, Michael**; Schmidberger, Manuel; Fluck, Elody; Köbele, Daniel

### P46: ECSS2015-159

The enhancement of vertical wind shear by tall mountains in convective storm environments

Kahraman, Abdullah; Markowski, Paul M.

### P47: ECSS2015-162

Severe Convection in the Alpine region: a radar based hail climatology.

Nisi, Luca; Martius, Olivia; Hering, Alessandro; Germann, Urs

### P48: ECSS2015-172

Radar analysis of two tornadoes occurred in the outer rainband of Typhoon 'Neoguri' **Yuasa, Soichiro**; Sassa, Koji

### P49: ECSS2015-173

First results of lightning and radar observations in Minas Gerais, Brazil

Held, Gerhard; Gomes, Ana Maria; Jusevicius, Marco; Beneti, Cesar A.; Paiva Neto, Arthur Chaves

### P50: ECSS2015-175

Relating Thunderstorm Occurrence to Flow Types in the Eastern Alpine Region

Krennert, Thomas; Kainz, Astrid

### P51: ECSS2015-179

Extratropical severe storms and UTLS Potential energy surges

Tripoli, Gregory J.

### P52: ECSS2015-183

The application of UAS towards tornado research and forecasting

Houston, Adam; Limpert, George

### P53: ECSS2015-184

Analysis of an outbreak of extremely severe weather followed by tornado in Serbia Rabrenovic, Maja

### P54: ECSS2015-189

Historical Damage Photograph Details of the Wiener Neustadt Tornado of 1916

**Schreiner, Thomas M. E.**; Stampfl, Mathias; Holzer, Alois M.

### **END OF POSTER PROGRAMME**

### Friday, 18 September 2015

Location: Ballroom

09:00-10:35 RAD: Radar

Chairperson: K. Wapler

09:00-09:20: ECSS2015-78

Plains Elevated Convection At Night (PECAN): Preliminary Analyses of Severe Surface Wind Production

in a Nocturnal MCS

Kosiba, Karen; Wurman, Josh

09:20-09:35: ECSS2015-180

Wind, pressure and temperature fields near tornadic and non-tornadic narrow cold-frontal rain bands

Clark, Matthew; Parker, Douglas

09:35-09:50: ECSS2015-23

Signatures of Convective Wind Gusts from the Operational Radar Network in Switzerland

Trefalt, Simona; Martius, Olivia; Hering, Alessandro; Germann, Urs

09:50-10:05: ECSS2015-81

Advection correction of radar-based probability of hail in

Lukach, Maryna; Foresti, Loris; Delobbe, Laurent

10:05-10:20: ECSS2015-174

Characteristics of storm cells observed by the first polarimetric C-band radar in Minas Gerais

Gomes, Ana Maria; Lima, Maria Andrea; Held, Gerhard; Beneti, Cesar A.; Calvetti, Leonardo; Paiva Neto, Arthur Chaves

10:20-10:35: ECSS2015-122

Integrated Polarimetric Radar and Kinematic Analyses of the 19 May 2013 Norman-Shawnee, Oklahoma Tornadic

French, Michael; Burgess, Donald; Potvin, Corey; Wicker, Louis

**Discussion** 

**END OF ORAL PROGRAMME RAD** 

10:35 Coffee break

11:30-13:00

**IMP: Impacts** 

Chairperson: N. Strelec Mahovic

11:30-11:45: ECSS2015-19

Hail losses under the microscope - Comparing losses from three major hail events of the recent past

Viktor, Elisabeth; Reese, Stefan; Zimmerli, Peter

11:45-12:00: ECSS2015-170

Impact-based evaluation of European severe weather

reports

Kühne, Thilo; Groenemeijer, Pieter

12:00-12:15: ECSS2015-108

Financial losses of tornadoes in European countries

Grieser, Jürgen; Terenzi, Francesca

12:15-12:30: ECSS2015-36

The impact of severe convection on air traffic and forecast

products for air traffic control

Winkler, Roland; Steinheimer, Martin; Kaltenböck,

Rudolf

12:30-12:45: ECSS2015-37

Severe weather and psychology -Analysis of

international survey data

Keul, Alexander; Brunner, Bernhard; Korff, Melanie; Sharma, Sanjay; Roy, Partha; Allen, John; Bowden, Katie A.; Aini, Mat Said; Elistina, Abu Bakar; Ab Kadir, Mohd Zainal Abidin; Gomes, Chandima; Taszarek, Mateusz

12:45-13:00: ECSS2015-116

Weather myths about convective storms: an objective assessment of their validity and their psychological basis Göber, Martin; Karb, Anastasia; Wapler, Kathrin;

Fleischhut, Nadine

**END OF ORAL PROGRAMME IMP** 

13:00-14:00

SE7: Closing and Awards Session

Information as of 9 September 2015. Please check local announcements or see ECSS message board for latest updates.

**Updates on Twitter:** 

#essl\_ecss