

3rd European Hail Workshop: 16 March - 18 March 2020

(last update 21 January 2020)

| Time | Monday | Tuesday | Wednesday |
|-------|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------------------------------------------------------|
| 08:30 | | | |
| 09:00 | | 8:30 - 09:45 Session 3a (4) Hail climatology, risk and loss | 8:30 - 10:30 Session 4b (8) Hail detection and forecasting |
| 09:30 | | | |
| 10:00 | | 09:45 - 10:30 Open session for early career scientists | |
| 10:30 | | 10:30 - 10:50 Coffee break | 10:30 - 11:00 Coffee break |
| 11:00 | | | |
| 11:30 | | 10:50 - 12:05 Open session for early career scientists (Discussion) | 11:00 - 12:15 Plenary discussion |
| 12:00 | 12:00 - 12:30 Registration open | | |
| 12:30 | 12:30 - 12:45 Opening | 12:05 - 12:55 Lunch break | 12:15 - 13:15 Lunch break |
| 13:00 | 12:45 - 14:10 Session 1 (5 Talks) Convection and hail in a changing climate | 12:55 - 13:15 Open session for early career scientists | 13:15 - 14:00 Session 4b (3) Hail detection and forecasting |
| 13:30 | | | |
| 14:00 | | 13:15 - 14:45 Session 3b (6) Hail climatology, risk and loss | 14:00 - 15:10 Session 5a (4) Microphysics and dynamics of hailstorms |
| 14:30 | 14:10 - 14:45 Coffee break | | |
| 15:00 | | 14:45 - 15:15 Coffee break incl. Conference photo | 15:10 - 15:45 Coffee break |
| 15:30 | 14:45 - 16:30 Poster session | 15:15 - 17:00 Session 3c (7) Hail climatology, risk and loss | |
| 16:00 | | | |
| 16:30 | 16:30 - 16:45 Coffee break | | 15:45 - 17:30 Session 5b (7) Microphysics and dynamics of hailstorms |
| 17:00 | 16:45 - 17:50 Session 2 (4) Hail damage and damage prevention | 17:00 - 17:20 Coffee break | |
| 17:30 | | 17:20 - 18:25 Session 4a (4) Hail detection and forecasting | 17:30 - 17:50 Closing remarks (Awards & discussion) |
| 18:00 | | | |
| 18:30 | 18:00 Icebreaker (Foyer Tullahörsaal) | | |
| 19:00 | | 18:30 Get-Together (Foyer Tullahörsaal) | |
| 19:30 | | | |
| 20:00 | | | |
| 20:30 | | | |
| 21:00 | | | |

Preliminary Conference Programme
3rd European Hail Workshop: 16 March - 18 March 2020
(last update 21 January 2020)

Monday, 16 March 2020

| Session 1: Convection and hail in a changing climate | | |
|-------------------------------------------------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------|
| 12:45 - 13:05 | Julian Brimelow | What can past changes in hailstorm environments tell us about future changes in hail? |
| 13:05 - 13:25 | Michael Tippett | tba |
| 13:25 - 13:40 | Qinghong Zhang | Recent progress in understanding responses of hailstorm to climate change in China |
| 13:40 - 13:55 | Sonia Lasher-Trapp | Possible trends in melting hail in a future, warmer climate |
| 13:55 - 14:10 | Roelof Bruintjes | Changes in Microphysics and Dynamics of Convective Storms Globally Affecting Hail Formation due to Anthropogenic Activity |
| Session 2: Hail damage and damage prevention | | |
| 16:45 - 17:05 | Ian Giammanco | Hail Damage in the United States: What Happened? And Can We Bend Down the Loss Curve? |
| 17:05 - 17:20 | Claude Berthet | Upscaling point hailfall measurements of hail in Southwestern France |
| 17:20 - 17:35 | Rebecca Barthelmie | Hail as a major damage vector for wind turbine blades |
| 17:35 - 17:50 | Satyanarayana Tani | An investigation of severe hailstorm characteristics over the present decade in the province of Styria, Austria |

Tuesday, 17 March 2020

Session 3: Hail climatology, risk, and loss

| | | |
|---------------|-------------------|---------------------------------------------------------------------------------------------------------------------------|
| 08:30 - 08:50 | Elisa Murillo | United States Hail Climatology: How good can we get? |
| 08:50 - 09:10 | Anja Rädler | Expected changes in severe hailstorm risk across Europe in the 21st century |
| 09:10 - 09:30 | Simona Trefalt | An updated and extended Radar-based climatology of hail for Switzerland – A public-private partnership lead by MeteoSwiss |
| 09:30 - 09:45 | Katharina Schröer | An environmentally constrained probabilistic hazard model to estimate hail risk in complex terrain |
| 13:15 - 13:30 | Luca Nisi | On the diurnal cycle of hail storms in the Alps: a radar-based high-resolution analysis between 2002 and 2017. |
| 13:30 - 13:45 | Roberto Cremonini | Short radar-based climatology of hail and severe weather in Northern Italy |
| 13:45 - 14:00 | Agostino Manzato | 1988-2016 hailstone climatology from the FVG hailpads network |
| 14:00 - 14:15 | Abdullah Kahraman | Hail in Europe: A 9-year climatology based on Unified Model convective-permitting simulations |
| 14:15 - 14:30 | Stefan Müller | Database of historical hail events for the past 150 years in Switzerland |
| 14:30 - 14:45 | Sarah D. Bang | Satellite-borne Passive-Microwave Hail Retrieval and Climatology |
| 15:15 - 15:30 | Sara C. Pryor | Modelling convective storms and hail over the southern Great Plains with WRF |
| 15:30 - 15:45 | Kasirga Yildirak | Actuarial Hail Map for Crops |
| 15:45 - 16:00 | John Allen | Tying Hail to its Potential Impacts over the United States |
| 16:00 - 16:15 | Juergen Grieser | On the Importance of the Hailstone-Size Distribution for Hail-Risk Modelling |
| 16:15 - 16:30 | Ansie Smit | Probabilistic Hail Hazard and Risk Assessment for South Africa |
| 16:30 - 16:45 | Stefanie Meul | A Severe Thunderstorm Risk Assessment Model for Europe |
| 16:45 - 17:00 | Kyle F. Itterly | Hail Storm Risk Assessment Using Space-Borne Remote Sensing Observations and Reanalysis Data |

Session 4: Hail detection and forecasting (Part 1)

| | | |
|---------------|----------------------------|-------------------------------------------------------------------------------------------------------------|
| 17:20 - 17:40 | Xiaofei Li | Sensitivity of Hail Precipitation to Ensembles of Uncertainties of Initial Environmental Conditions and CCN |
| 17:40 - 17:55 | John Allen | Forecast Parameters for Hail Occurrence and Size |
| 17:55 - 18:10 | Chandrasekar Radhakrishnan | CASA Hail Prediction System over Dallas Fort Worth Urban network |
| 18:10 - 18:25 | Mari Schmidt | Detection and nowcasting of hail growth and size at C band |

Wednesday, 18 March 2020

Session 4: Hail detection and forecasting (Part 2)

| | | |
|---------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 08:30 - 08:45 | Hélène Barras | Nowcasting hail with machine learning |
| 08:45 - 09:00 | Bartosz Czernecki | Application of machine learning to large hail prediction - the importance of radar reflectivity, lightning occurrence and convective parameters derived from ERA5 |
| 09:00 - 09:15 | Rachel Gutierrez | Environmental and Radar Characteristics of Gargantuan Hail-Producing Storms |
| 09:15 - 09:30 | Nathalie Caloz | What can polarimetric radar signatures tell us about the characteristics of storms? |
| 09:30 - 09:45 | Tomeu Rigo | A 5-year comparison of hail-pad observations and radar-based hail estimating products: VIL and POH |
| 09:45 - 10:00 | Robert J. Trapp | Satellite-based anticipation of extreme convective weather through quantification of convective updraft characteristics: Application to hail severity |
| 10:00 - 10:15 | Xiang Ni | Detections of Hail Storms from Spaceborne Precipitation Radar |
| 10:15 - 10:30 | Alessandro Hering | The potential of lightning-jumps for nowcasting hailstorms in the Alpine area |
| 13:15 - 13:30 | Damjan Jelic | Lightning jump as a diagnostic tool for hail occurrence in Croatia |
| 13:30 - 13:45 | Ena Hirschi | How can automatic hail sensor measurements improve the existing hail products? |
| 13:45 - 14:00 | Claus Riehle | About Physics and Calibration Procedure of the first real-time Hail Measurement Sensor |

Session 5: Microphysics and dynamics of hail storms

| | | |
|---------------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 14:00 - 14:20 | Constanze Wellmann | Using Statistical Emulation for Sensitivity Studies of Deep Convective Clouds |
| 14:20 - 14:40 | Matthew R. Kumjian | Environmental and Storm Structural Influences on Hail Size Inferred from Hailstone Growth Trajectory Model Calculations |
| 14:40 - 14:55 | Becky Adams-Selin | Comparison of One-Dimensional Pseudo-Lagrangian, Three-Dimensional Fully Lagrangian, and Four-Dimensional Time-Dependent Trajectories when Forecasting Hail Size |
| 14:55 - 15:10 | Andrew Barrett | Processes contributing to hail formation in COSMO & ICON simulations |
| 15:45 - 16:00 | Alberto de Lozar | Two-moment microphysics provides a better representation of high-reflectivity cores in ICON-D2 |
| 16:00 - 16:15 | Barbara Malecic | Sensitivity of WRF-HAILCAST to PBL parametrization schemes in simulating hail event over Croatia |
| 16:15 - 16:30 | Raquel Evaristo | Characteristics of updrafts and relationship to the development of hail and Zdr columns |
| 16:30 - 16:45 | Yun Chen | Characteristics of Atmospheric Stratification and Melting Effect of Severe Hail Events in Guangdong Province |
| 16:45 - 17:00 | Xiaofeng Lou | Numerical Modeling of Hailstorms with Agl Seeding |
| 17:00 - 17:15 | Urs Germann | A Re-Evaluation of the Swiss Hail Suppression Experiment Using a Four-Moment Approximation to the Permutation Test |
| 17:15 - 17:30 | Hakki Baltaci | An Extreme Hailstorm on 27 July 2017 in Istanbul, Turkey: Synoptic scale circulation and thermodynamic evaluation |

Open session for early career scientists (Tuesday 09:45 - 13:15 incl. breaks)

| | |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| Joshua Soderholm | Observing hail: new approaches for measuring size distribution and trajectories aloft. |
| Marco Planzer | On the role of building characteristics for vulnerability to hail |
| Christoph von Matt | ZDR-Column Detection in Switzerland |
| Jannik Wilhelm | Life cycle analysis of convective cells for Nowcasting purposes in consideration of atmospheric environment conditions (LifeCycle) |
| Tian Zou | Responses of Hail and Storm Days to Climate Change in the Tibetan Plateau: Observations and climate models |
| Ziwei Zhou | Seeking favorable environment for severe hailstorm from the global view |
| Andreas Bernatzky | Investigation of the influence of hail defence on hail damage and meteorological data in the district of Rosenheim |

Postersession (Monday 14:45 - 16:30)

| | |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Susanna Mohr | Severe convective storms connected with hail across Europe and their relation to large-scale mechanisms |
| Timothy Raupach | How will climate change affect hailstorms? |
| Timothy Raupach | Tracking simulated thunderstorms in complex terrain |
| Ruoyi Cui | Case studies of hail and lightning in convection-resolving simulations over the Alpine-Adriatic region |
| Lucía Elizabeth Arena | Comparative Study of Giant Hailstones fallen in the Province of Córdoba-Argentina in 1988 and 2018 |
| Bruce Boe | An operational cloud seeding program to suppress urban hail damage in Alberta, Canada |
| Daniel Florea | The hail study in Moldavia area based on radar archive in 2017 and 2018 and the importance of the hail suppression unit Moldova 1 |
| Chukwuma Anoruo | Seasonal trend investigation of hailstorms in Germany using temperature influence on precipitation |
| Vera Meyer | A thunderstorm and hail study over Austria |
| Katerina Skripnikova | The distribution of radar-based hail risk over the Czech territory |
| Michèle Lai | Estimating hail risk in Europe for the insurance industry |
| Liliya Bocheva | Regional analysis of hail precipitation in Bulgaria (1991-2018) |
| Pieter Groenemeijer | Estimating changes in high-end hail losses in Europe using a hail event set |
| Heinz Jürgen Punge | Hail hazard assessment for South Africa using satellite and climate model data |
| Dragana Vujovic | Analysis of hail/ice pellet precipitation in Serbia during the period 1981-2015 |
| Mykhailo Koman | Identification of hail by lightning detection network data |
| Hernán Bechis | A case study of a severe hailstorm in central Argentina during the RELAMPAGO-CACTI field campaign |
| Stavros Dafis Master | Hail-producing storms and passive microwave retrievals |
| Ding Jianfang | Research and Application Command System of Artificial Hail Suppression Operation in Henan |
| Tomeu Rigo | Improving the knowledge about the life cycle of severe thunderstorms in Catalonia |
| Roland Góth | The role of meteorology in the new Hungarian hail suppression system |
| Tim Böhme | Hail detection using operational weather radar products at Deutscher Wetterdienst |

| | |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ivan Tsonevsky | ECMWF's Extreme Forecast Index applied to predicting severe convection |
| Istrate Vasilica | European severe weather database hail reports in Romania – climatology and analysis sounding-derived parameters |
| Jannik Wilhelm | Life cycle analysis of convective cells for Nowcasting purposes in consideration of atmospheric environment conditions (LifeCycle) |
| Manuel Schmidberger | Can we predict explosive development of severe hailstorms? |
| Hélène Barras | Comparing >60'000 crowdsourced hail reports with radar based hail products |
| Rafael Posada | Object-based probabilistic forecast combining Nowcasting and NWP ensembles |
| Camila Lopes | Microphysics, Kinematics and Electrical Activity of Hail Producing Storms during SOS-CHUVA Project |
| Tsvetelina Dimitrova | Hail-producing supercell developed over Bulgaria on May 15th 2018 - characteristics, evolution and damages. |
| Tomeu Rigo | The relationship between the lightning jump and different types of precipitation in Summer events: first results comparing hail and heavy rainfall in Catalonia |
| Corinna Hoose | Representation of hailstorms in ICON-ART |
| Miklós Szakáll | Novel experimental insight into the kinematics of hailstones – Initiation of an international collaborative project |