

# ACCELERATING CLIMATE ACTION

## A JUST TRANSITION IN A POST-COVID ERA

22-24 September 2021 - Online

### PROGRAMME OVERVIEW

Wed, 22 Sep	Thu, 23 Sep	Fri, 24 Sep
09:00-09:15 Familiarizing with the ZOOM platform	09:00-9:15 Familiarizing with the ZOOM platform	09:00-9:15 Familiarizing with the ZOOM platform
09:15-11:00 - PARALLEL SESSION 1 S.1.1 – Climate policies, transition pathways and mitigation technologies in the context of sustainable development S.1.2 – Climate trends: changes in means and extreme events in observations, simulations and projections I	09:15-11:00 - PARALLEL SESSION 3 S.3.1 – Ocean climate variability and mitigation option S.3.2 – Predicting climate change in the context of risk and adaptation options I	09:15-11:00 - PARALLEL SESSION 4 S.4.1 – Predicting climate change in the context of risk and adaptation options S.4.2 – Climate services and their potential to support adaptation and risk management
<i>Coffee break</i>	<i>Coffee break</i>	<i>Coffee break</i>
11:30-12:55 - PARALLEL SESSION 2 S.2.1 – Urban areas: Assessing, predicting and managing the current and future risk I S.2.2 – Climate related impacts, risks and adaptation options I	11:30-12:15 <b>KEYNOTE LECTURE</b> Antoine Dechezleprêtre	11:30-12:55 - PARALLEL SESSION 5 S.5.1 – Climate related impacts, risks and adaptation options II S.5.2 – Climate trends: changes in means and extreme events in observations, simulations and projections II
<i>Lunch break</i>	<i>Lunch break</i>	<i>Lunch break</i>
14:00-15:30 Poster session 1	14:00-15:30 Poster session 2	14:00-15:25 - PARALLEL SESSION 6 S.6.1 – Urban areas: Assessing, predicting and managing the current and future risk S.6.2 – Climate related impacts, risks and adaptation options III
<i>Coffee break</i>	<i>Coffee break</i>	<i>Coffee break</i>
16:00-16:45 <b>KEYNOTE LECTURE</b> Mark Z. Jacobson	16:00-16:45 <b>KEYNOTE LECTURE</b> Chris Field	16:00-16:30 <i>Reflections on the conference and Award session</i>

## FINAL PROGRAMME

*(last updated: 20 Sep 2021)*Wed  
**22**  
Sep

09:00 – 09:15 (CEST) - Familiarizing with the ZOOM platform

## PARALLEL SESSION 1

Wed  
**22**  
Sep

9:15 – 11:00 (CEST)

**S.1.1 – Climate policies, transition pathways and mitigation technologies in the contest of sustainable development**

Chair: Enrica De Cian

- 09:20-09:40 **Impacts of and Policy Response to Extreme Weather and Pandemics in the Context of Electricity Demand and Economic Growth**  
**Chung-Huang HUANG**, Taiwan Association for Low Carbon Society and Green Economy, Taiwan  
Author(s): Shin-Hang Lo, Shao-Hui Kao, Ching-Yu Li, and Chung-Huang Huang
- 09:40-10:00 **Towards a More Structured Dialogue between Climate Science and Policy in Italian Institutions**  
**Antonello PASINI**, CNR, Italy  
Author(s): Antonello Pasini
- 10:00-10:20 **Emission Trading in a High Dimensional Context: to What Extent Carbon Markets are Integrated with the Broader System?**  
**Marco QUATROSI**, University of Ferrara, Italy  
Author(s): Marco Quatrosi
- 10:20-10:40 **Buffered Enhanced Weathering of Limestone as CO<sub>2</sub> Storage Technology: Material and Energy Balance and Cost Analysis**  
**Francesco Pietro CAMPO**, Politecnico di Milano, Italy  
Author(s): Francesco Pietro Campo, Stefano Caserini, Giovanni Cappello, Davide Righi, Serena De Marco, Mario Grosso
- 10:40-11:00 **Energy Needs for Adaptation Significantly Impact Mitigation Pathways**  
**Francesco COLELLI**, CMCC Foundation and Ca' Foscari University of Venice, Italy  
Author(s): Francesco Colelli, Johannes Emmerling, Giacomo Marangoni, Malcolm Mistry, Enrica De Cian

Wed  
**22**  
Sep

9:15 - 11:00 (CEST)

**S.1.2 – Climate trends: changes in means and extreme events in observations, simulations and projections I**

Chair: Damiano Gianelle

- 09:15-09:20 Introduction
- 09:20-09:40 **Radiative Impact of Biomass-burning Aerosols at THAAO and over the Western Arctic in August 2017**  
**Filippo CALÌ QUAGLIA**, Ca' Foscari University of Venice, Italy  
Author(s): Filippo Calì Quaglia, Daniela Meloni, Alcide Giorgio di Sarra, Tatiana Di Iorio, Virginia Ciardini, Giandomenico Pace, Giovanni Muscari, Silvia Becagli, Annalisa di Bernardino, Marco Cacciani, Ivan Ortega, James W. Hanni
- 09:40-10:00 **Spectral Analysis of a Climatological Period of Simulations of Soil Temperature and Moisture in Northern Italy with UTOPIA Model**  
**Claudio CASSARDO**, University of Turin, Italy  
Author(s): Claudio Cassardo, Valentina Andreoli, Davide Mastrandrea
- 10:00-10:20 **Chilling Requirements of Olive Trees over the Euro-Mediterranean Region Under Climate Change**  
**Ali DIDEVARASL**, University of Sassari, Italy  
Author(s): Ali Didevarasl, Jose Maria Costa-Saura, Donatella Spano, Valentina Mereu, Maurizio Mulas, Antonio Trabucco
- 10:20-10:40 **Interannual to Decadal Predictability of Heatwaves over Europe in Large-Ensemble Hindcasts**  
**Giusy FEDELE**, CMCC Foundation Italy  
Author(s): Giusy Fedele, Panos Athanasiadis, Eirini Tsartsali, Dario Nicolì, Stefano Tibaldi and Silvio Gualdi
- 10:40-11:00 **Towards Local Scale Scenarios of Coastal Climate Change in the Northern Adriatic Area**  
**Dario GIAIOTTI**, ARPA FVG, Italy  
Author(s): Alessandro Acquavita, Massimo Bagnarol, Christian Ferrarin, Federica Flapp, Dario Gaiotti, Elena Giancesini, Denis Guiatti, Simone Martini, Eddio Marini, Alessandro Minigher, Cristina Moro, Moira Pittis

Wed  
**22**  
Sep

11:00 - 11:30 (CEST) – Coffee break

## PARALLEL SESSION 2

Wed  
**22**  
Sep

11:30-12:55 (CEST)

**S.2.1 – Urban areas: Assessing, predicting and managing the current and future risk I**

Chair: Paola Mercogliano

- 11:30-11:35 Introduction
- 11:35-11:55 **Assessment Tools for the Thermal Impact of Multi-scale Urban Modifications**  
**Giuseppe FRUSTACI**, Fondazione Osservatorio Meteorologico Milano Duomo, Italy  
Author(s): Cristina Lavecchia, Giuseppe Frustaci, Samantha Pilati, Enea Montoli
- 11:55-12:15 **A New Reanalysis Dataset to Support Urban Pluvial Flood Analysis Assessment in Urban Areas**  
**Roberta PADULANO**, CMCC Foundation Italy  
Author(s): Roberta Padulano, Alfredo Reder, Mario Raffa, Guido Rianna, Paola Mercogliano
- 12:15-12:35 **Connected Urban Green Spaces for Disaster Risk Reduction in the Metropolitan Area of Milan**  
**Andrea STACCIONE**, CMCC Foundation and Ca' Foscari University of Venice, Italy  
Author(s): Andrea Staccione
- 12:35-12:55 **Updating the Current Field of ISA in TERRA\_URB Scheme within the COSMO(-CLM) model. Survey of the Existing Land Cover Datasets**  
**Carmela APREDA**, CMCC Foundation, Italy  
Author(s): Carmela Apreda, Alfredo Reder, Francesco Repola, Paola Mercogliano

Wed  
**22**  
Sep

11:30-12:55 (CEST)

**S.2.2 – Climate related impacts, risks and adaptation options I**

Chair: Monia Santini

- 11:30-11:35 Introduction
- 11:35-11:55 **Pre-processing and Analysis of TreeTalker's Data: An Example from Chestnut Forest**  
**Nafeesa SAMAD**, University of Tuscia, Italy  
Author(s): Nafeesa Samad, Maria Vincenza Chiriaco, Claudia Cagnarini, Riccardo Valentini
- 11:55-12:15 **Cumulative Impacts Assessment (CIA) on Marine and Coastal Ecosystems: Key Outputs from the Scientometric and Systematic Reviews**  
**Christian SIMEONI**, Ca' Foscari University of Venice, Italy  
Author(s): Christian Simeoni, Elisa Furlan, Elena Allegri, Vuong Pham, Silvia Torresan, Andrea Critto, Silvia de Juan, Ewan Trégarot, Cindy Cornet, Erik Meesters, Catarina Fonseca, Andrea Zita Costa Botelho
- 12:15-12:35 **Classifying Banks From an Environmental Perspective**  
**Pierluigi TOMA**, University of Salento, Italy  
Author(s): Vittorio Boscia, Valeria Stefanelli, Pierluigi Toma
- 12:35-12:55 **Non-Linear Interactions between Climate Change and Host Processes Drive the Future of a Helminth-Herbivore System**  
**Chiara VANALLI**, Penn State University, United States  
Author(s): Chiara Vanalli, Lorenzo Mari, Renato Casagrandi, Marino Gatto, Brian Boag, Isabella M. Cattadori

Wed  
**22**  
Sep

12:55 - 14:00 (CEST) – Lunch break

Wed  
**22**  
Sep14:00 - 15:30 (CEST)  
**Poster Session 1**

[POSTER] **Adaptive Normative Constraints to Mitigate Climate Change Induced Conflicts in a Snowmelt Dominated Water System**

**Alessandro AMARANTO**, RSE, Italy

Author(s): Alessandro Amaranto, Matteo Giuliani, Andrea Castelletti

[POSTER] **Global Perceptions and Priorities in Urban Stormwater Adaptation Management**

**Charles AXELSSON**, Ca' Foscari University of Venice, Italy

Author(s): Charles Axelsson, Silvio Giove, Stefano Soriani, Patricia Culligan

[POSTER] **Quantification (Evaluation and Valuation) of the Mitigation Capacity by the Whole Natural Compendium (Sea and Land) in Italy**

**Laura BASCONI**, Ca' Foscari University of Venice, Italy

Author(s): Laura Basconi

[POSTER] **Project of Network Adjustment to WMO Standards to Provide FAIR Dataset as a Tool to Supply Weather and Climate Information to Support Climate Adaptation and Risk Management in the Umbria Region**

**Miriam SARACENI**, University of Perugia, Italy

Author(s): P. Bongioannini Cerlini, L. Silvestri, G. Cinque, B. Brunone, M. Saraceni, R. Ferretti

[POSTER] **Evaluation of Temperature and Precipitation Seasonal Forecasts over the Mediterranean Region**

**Filippo CALÌ QUAGLIA**, Ca' Foscari University of Venice, Italy

Author(s): Filippo Calì Quaglia, Silvia Terzago, Jost von Hardenberg

[POSTER] **Precipitation Trends in Abruzzo 1980-2019: Rainfall Erosivity and Comparison with Gridded Dataset**

**Gabriele CURCI**, University of L'Aquila, Italy

Author(s): Bruno Di Lena, Gabriele Curci, Lorenzo Vergni

[POSTER] **Can We Use Flood Control Infrastructures in Forecast-Based Drought Management in a Drying Climate?**

**Matteo GIULIANI**, Politecnico di Milano, Italy

Author(s): Francesca Robba, Matteo Giuliani, Alessandro Amaranto, Andrea Castelletti

[POSTER] **Heat Events in the Indian Subcontinent under a Warming Climate Scenario: Detection and Implications on Human Health**

**Ritika KAPOOR**, CMCC Foundation, Italy

Author(s): Ritika Kapoor, Carmen Alvarez-Castro, Enrico Scoccimarro, Stefano Materia, Silvio Gualdi

Wed  
**22**  
Sep

15:30 - 16:00 (CEST) – Coffee break

Wed  
**22**  
Sep16:00 - 16:45 (CEST)  
**PL.02 - Plenary Session 1**  
Chair: Maria Cristina Facchini**Transitioning Italy and the world to 100% clean, renewable energy and storage for everything**  
Mark Z. JACOBSON, Stanford University, USA

*Global warming, air pollution, and energy insecurity are three of the most significant problems facing the world today. This talk discusses technical and economic roadmaps designed to address these issues. If put in place, the roadmaps will substantially eliminate global warming and seven million air pollution deaths worldwide each year while creating millions of jobs and reducing energy costs, catastrophic risk, and international conflicts over energy. The plans call for converting the energy infrastructures of homes, cities, states, and countries of the world, including Italy, to those powered by 100% wind, water, and sunlight (WWS) and storage for all purposes (electricity, transportation, building heating/cooling, and industry). To date, roadmaps have been developed for 127 international cities, all 50 U.S. states, and 145 countries. Results indicates the electric power grid can remain stable at low cost worldwide with these roadmaps. The talk also discusses policies and laws in place to date resulting from these roadmaps, public opinion, and what is still needed to transition fully. Please see the following links to papers (<https://stanford.io/3znf53j>) and a textbook (<https://stanford.io/3tWv9YI>) for more information.*

Thu  
**23**  
Sep

09:00 – 09:15 (CEST) - Familiarizing with the ZOOM platform

**PARALLEL SESSION 3**Thu  
**23**  
Sep09:15-11:00 (CEST)  
**S.3.1 – Ocean climate variability and mitigation option**  
Chair: Marco Marcelli

- 09:15-09:20 Introduction
- 09:20-09:40 **Accelerating Green Transitions in The Maritime Ecosystem**  
**Anna LE GERSTRØM RODE**, Aarhus University, Denmark  
Author(s): Anna Le Gerstrøm Rode, Hans Sanderson and Per Svejvig
- 09:40-10:00 **Sub-seasonal to Seasonal (S2S) Drivers of Arctic Sea Ice Variability Clusters**  
**Elena BIANCO**, CMCC Foundation, Italy  
Author(s): Elena Bianco, Dorotea Iovino, Stefano Materia, Paolo Ruggieri, Simona Masina
- 10:00-10:20 **Is Arctic Climate Change the Missing Component in Scotland's Tsunami Hazard Assessments?**  
**Susanne DAVIDSON**, University of the Highlands and Islands, Scotland, United Kingdom  
Author(s): Susanne Davidson
- 10:20-10:40 **Review of Costs and Energy Consumptions of Limestone Extraction, Processing and Transportation for a Large-Scale Development of Ocean Liming**  
**Serena DE MARCO**, Politecnico di Milano, Italy  
Author(s): Serena De Marco, Stefano Caserini, Mario Grosso
- 10:40-11:00 **The Availability of Limestone and other Raw materials for Ocean-Based Negative Emission Technologies**  
**Niccolò STORNI**, Politecnico di Milano, Italy  
Author(s): Niccolò Storni, Stefano Caserini, Mario Grosso

Thu  
**23**  
Sep

09:15-11:00 (CEST)

**S.3.2 – Predicting climate change in the context of risk and adaptation options I**

Chair: Annalisa Cherchi

09:15-09:20 Introduction

09:20-09:40 **Predicting Climate Change over the Multi-Annual Range: a Perspective from CMCC Decadal Prediction System****Dario NICOLI**, CMCC Foundation, Italy

Author(s): Dario Nicoli, Alessio Bellucci, Paolo Ruggieri, Panos Athanasiadis, Giusy Fedele and Silvio Gualdi

09:40-10:00 **An Idealised Study of the Tropospheric and Stratospheric Response to Reduced Winter Land Sea Contrast****Alice PORTAL**, Università degli Studi di Milano - Bicocca, Italy

Author(s): Alice Portal, Claudia Pasquero, Fabio D'Andrea, Paolo Davini, Mostafa Hamouda

10:20-10:40 **Helping the Agriculture Business Make Better Choices: the Value of Seasonal Climate Forecasts****Stefano MATERIA**, CMCC Foundation, Italy

Author(s): Stefano Materia, Alberto Ceccacci, Silvio Gualdi

10:40-11:00 **Climatic Suitability Predictions for the Cultivation of Macadamia in Malawi Using Climate Change Scenarios****Emmanuel Junior ZUZA**, The Open University, United Kingdom

Author(s): Emmanuel Junior Zuza, Kadmiel Maseyk, Shonil A. Bhagwat, Kauê de Sousa, Andrew Emmott, William Rawes, Yoseph Negusse Araya

Thu  
**23**  
Sep

11:00 - 11:30 (CEST) – Coffee break

Thu  
**23**  
Sep

11:30 - 12:15 (CEST)

**PL.01 - Plenary Session 1**

Chair: Enrica De Cian

**Assessing the Economic Impacts of Environmental Policies**Antoine DECHEZLEPRÊTRE, OECD, France

*Over the years, governments have gradually adopted more rigorous environmental policies to tackle challenges associated with pressing environmental issues, such as climate change, air pollution, waste management or biodiversity loss. The ambition of these policies is, however, often tempered by their perceived negative effects on the economy. Do differences in the stringency of environmental policies across countries alter firms' competitiveness and cost jobs? Does taking the lead trigger a first-mover advantage? What are the differentiated impacts across firms, industries and regions? And are these policies effective in reducing emissions from industry? A recent OECD publication presents evidence from a decade of research and analysis on the relationship between environmental policies and economic outcomes such as employment, investment, trade and productivity.*

Thu  
**23**  
Sep

12:15 - 14:00 – Lunch break



Thu  
**23**  
Sep14:00 - 15:30 (CEST)  
Poster Session 2**[POSTER] Creating Neural Network-Based Ensemble Weather Forecasts****Gabriele MESSORI**, Uppsala University, Sweden  
Author(s): Gabriele Messori, Sebastian Scher**[POSTER] Adaptation and Sustainable Development, Climate Policies and Trajectories Post Covid-19****Sergio PENA-NEIRA**, Universidad Mayor, Chile  
Author(s): Sergio Pena-Neira**[POSTER] A Matrix for Interdisciplinary Research on Health as a Complex Integrated System****Arianna PORRONE**, University of Macerata, Italy  
Author(s): Valentina De Gregorio, Luisa Ceresa, Giulia Parola, Arianna Porrone, Margherita Paola Poto**[POSTER] Assessing Future Wildfire Impacts Across G20 Countries****Claudio RIBOTTA**, University of Sassari, Italy  
Author(s): Jose Maria Costa-Saura, Claudio Ribotta, Valentina Bacciu, Costantino Sirca, Donatella Spano**[POSTER] Antarctic Sea Ice Area in Ocean Reanalyses****Iulia SELIVANOVA**, University of Bologna, Italy  
Author(s): Julia Selivanova, Dorotea Iovino, Andrea Cipollone, Simona Masina**[POSTER] Community Resilience Evolutions During Inter-twinned One Health Crises****Domenico VITO**, Politecnico di Milano, Italy  
Author(s): Domenico Vito**[POSTER] Spatio-temporal Machine Learning Models to Enhance Pluvial Flood Risk Assessment and Community Resilience to Climate Change****Elena ALLEGRI**, CMCC Foundation, Italy  
Author(s): Marco Zanetti, Elena Allegri, Anna Sperotto, Silvia Torresan, Andrea Critto**[POSTER] Multi-hazard Assessment Exploiting Machine Learning Capabilities for Eutrophication Modeling: the Venice Lagoon Case Study****Federica ZENNARO**, CMCC Foundation, Italy  
Author(s): Zennaro Federica, Furlan Elisa, Aslan Sinem, Critto Andrea, Marcomini Antonio**[POSTER] Overcoming Conflicting Notions of Climate Forecasts Reliability and Skill in the Agricultural Sector: Lessons Learnt from the MED-GOLD project****Alessandro DELL'AQUILA**, ENEA, Italy  
Author(s): Sandro Calmanti, Marta Bruno Soares, Alessandro Dell'Aquila, Luigi Ponti, Matteo De Felice, Nube González-Reviriego, Raúl Marcos-Matamoros, Marta Terrado, António Graça, Natacha Fontes, Marta Teixeira, Chiara Monotti, Javier López Nevado, Valentina ManstrettaThu  
**23**  
Sep

15:30 - 16:00 (CEST) – Coffee break

Thu  
**23**  
Sep16:00 - 16:45 (CEST)  
PL.03 - Plenary Session 3  
Chair: Riccardo Valentini**Accelerating Climate-Change Solutions: Designing for Near-Term and Long-Term Benefits****Chris FIELD**, Woods Institute for the Environment, Stanford University, USA

*Past thinking about investments in climate-change solutions typically characterized them as pulling resources away from productive near-term uses. Investments in mitigation were viewed as required to meet long-term commitments, and investments in adaptation were viewed as valuable, but only under a narrow range of conditions associated with climate extremes. Increasingly, it is clear that a broad range of investments in both mitigation and adaptation can provide both near-term and long-term benefits. High levels of near-term benefits can come from four factors: (1) technology leadership and its influence on market dominance, (2) lower cost or higher performance, (3) increased efficiency, and (4) multi-hazard risk reduction. Developing all four in ways that balance environmental justice with economic opportunities remains a challenge. Still, a wide range of climate-change solutions can contribute simultaneously to mitigation, adaption, near-term economic growth, and a just transition.*



Fri  
**24**  
Sep

09:00 – 09:15 (CEST) - Familiarizing with the ZOOM platform

## PARALLEL SESSION 4

Fri  
**24**  
Sep

09:15-11:00 (CEST)

**S.4.1 – Predicting climate change in the context of risk and adaptation options**

Chair: Marta Antonelli

09:15-09:20 Introduction

09:20-09:40 **An integrated and automatic approach to evaluate coastal erosion risk and its nexus with oceanographic drivers and water quality parameters: the Venice littoral case study****Maria Katherina DAL BARCO**, Ca' Foscari University of Venice, Italy

Author(s): Stefano Fogarin, Marco Zanetti, Maria Katherina Dal Barco, Federica Zennaro, Elena Allegri, Elisa Furlan, Silvia Torresan, Andrea Critto, Antonio Marcomini

09:40-10:00 **A Novel Approach in Supporting the Local Authorities to Define Adaptation Actions to Climate Change.****Dario GIAIOTTI**, ARPA FVG, Italy

Author(s): Federica Flapp, Lia Gover, Elisa Sfiligoj, Martina Arteni, Sara Ursella, Dario Gaiotti, Elena Giancesini, Alessandro Minigher, Alex Pividori, Massimo Bagnarol, Simone Martini, Alessandro Acquavita

10:00-10:20 **An Investigation of Climate Change Adaptation Technologies****Kerstin HÖTTE**, University of Oxford, UK

Author(s): Kerstin Hötte, Sugandha Srivastav, Su Jung Jee

10:20-10:40 **Seasonal Forecast Skill of Upper-Ocean Heat Content in Coupled High-resolution Systems****Ronan MCADAM**, CMCC Foundation Italy

Author(s): Ronan McAdam, Simona Masina, Magdalena Balmaseda, Silvio Gualdi, Retish Senan and Michael Mayer

Fri  
**24**  
Sep

09:15-11:00 (CEST)

**S.4.2 – Climate services and their potential to support adaptation and risk management**

Chair: Alessandro dell'Aquila

- 09:15-09:20 Introduction
- 09:20-09:40 **Synergizing Earth Observations and Seasonal Forecasts within an Innovative Climate Index: the Case of Forage Production in Italy**  
**Sara DAL GESSO**, Amigo S.r.l., Italy  
Author(s): S. DAL GESSO, M. Venturini, G. Caria, P. Grilli
- 09:40-10:00 **The Copernicus Climate Change Service (C3S) Sectoral Information System (SIS) Pluvial Flood Risk Assessment in Urban Areas**  
**Paola MERCOGLIANO**, CMCC Foundation Italy  
Author(s): Paola Mercogliano, Guido Rianna, Alfredo Reder, Marco Mancini, Jaroslaw Mysiak, Stefano Bagli, Claire Jacobs, Gerard van der Schrier, Chiara Cagnazzo
- 10:00-10:20 **Determination of Seasonal Forecast Skill in Identifying Extreme Events of Temperature, Wind Speed, and SPI**  
**Massimiliano PALMA**, ENEA, SSPT-MET-CLIM, Italy  
Author(s): Massimiliano Palma, Franco Catalano, Irene Cionni, Marcello Petitta
- 10:20-10:40 **Seasonal Forecasting of Mountain Snow Depth: Evaluation of a Climate Service Prototype**  
**Silvia TERZAGO**, CNR and Institute of Atmospheric Sciences and Climate, Italy  
Author(s): Silvia Terzago, Giulio Bongiovanni, Jost von Hardenberg
- 10:40-11:00 **A Prototype Decadal Prediction Climate Service**  
**Eirini TSARTSALI**, CMCC Foundation, Italy  
Author(s): E.E. Tsartsali, P.J. Athanasiadis, S. Materia, and S. Gualdi

Fri  
**24**  
Sep

11:00 - 11:30 (CEST) – Coffee break

## PARALLEL SESSION 5

Fri  
**24**  
Sep

11:30-12:35 (CEST)

**S.5.1 – Climate related impacts, risks and adaptation options II**

Chair: Roberto Barbiero

11:30-11:35 Introduction

11:35-11:55 **Impacts of Climate Change on Pheno-physiological Variables Simulated with IVINE Crop Model in Northern Italy Vineyards****Valentina ANDREOLI**, University of Turin, Italy

Author(s): Valentina Andreoli, Claudio Cassardo, Valeria Dentis

11:55-12:15 **Subjective or Objective Climate Change Risk Assessment for Local Adaptation Plans: Towards a Materiality Approach. A Case Study****Luca CETARA**, Eurac Research, Italy

Author(s): Cetara Luca, Pasquale La Malva, Marco Pregnotato

12:15-12:35 **Exploring Socio-Natural Factors of Farmers' Adaptation: A Review on Risk Awareness and Perception towards Climate Change****Sandra RICART**, Politecnico di Milano, Italy

Author(s): Sandra Ricart, Andrea Castelletti

Fri  
**24**  
Sep

11:30-12:55 (CEST)

**S.5.2 – Climate trends: changes in means and extreme events in observations, simulations and projections II**

Chair: Mario Marcello Miglietta

11:30-11:35 Introduction

11:35-11:55 **Modelling Hail Probability over Italy with a Machine Learning Approach****Riccardo HÉNIN**, CMCC Foundation, Italy

Author(s): Hénin Riccardo, Veronica Torralba, Antonio Cantelli, Silvio Gualdi

11:55-12:15 **Future Projections of Rossby Wave Packets and Blocking Events with Particular Attention to the Northern Hemisphere****Arianna TREVISIOL**, RSE S.p.a., Italy

Author(s): Arianna Trevisiol, Luciano Gilli, Paola Faggian

12:15-12:35 **Recent Trends and Future Perspectives of Upwelling Events in the Gulf of Trieste****Alessandro MINIGHER**, ARPA FVG, Italy

Author(s): Dario Gaiotti, Alessandro Minigher

12:35-12:55 **Observed and Simulated Meridional Moisture Transport Associated with Tropical Cyclones****Daniele PEANO**, CMCC Foundation, Italy

Author(s): Daniele Peano, Enrico Scoccimarro, Alessio Bellucci, Tomas Lovato, Annalisa Cherchi, Silvio Gualdi

Fri  
**24**  
Sep

12:55 - 14:00 (CEST) – Lunch break

## PARALLEL SESSION 6

Fri  
**24**  
Sep

14:00-15:25 (CEST)

**S.6.1 – Urban areas: Assessing, predicting and managing the current and future risk**

Chair: Donatella Spano

- 14:00-14:05 Introduction
- 14:05-14:25 **A Smart Monitoring to Manage and Safeguard the Vegetation Component of Historic Gardens from Climate Change: the EFFORT Approach**  
**Elisa CARRARI**, University of Florence, Italy  
Author(s): Carrari E., Costafreda-Aumedes S., Dibari C., Ferrini F., Fineschi S., Giuntoli A., Manganelli Del Fa R., Moriondo M., Mozzo M., Padovan G., Riminesi C., Selvi F., Bindi M.
- 14:25-14:45 **Innovative Methodologies to Review and Conduct Climate Risk Assessments in Urban Contexts. Results and Opportunities from the Milan Case Study**  
**Veronica CASARTELLI**, CMCC Foundation and Ca' Foscari University of Venice, Italy  
Author(s): Veronica Casartelli, Letizia Monteleone
- 14:45-15:05 **Italian City Efficiency under Climate Variability: an Empirical Analysis**  
**Donatella VIGNANI**, ISTAT, Italy  
Author(s): Donatella Vignani, Sabrina Auci
- 15:05-15:25 **Temperature and Energy Price's Impact on Mortality in European Cities**  
**Marinella DAVIDE**, Ca' Foscari University of Venice, Italy and Harvard University, United States  
Author(s): Marinella Davide, Joseph E. Aldy, Enrica De Cian

Fri  
**24**  
Sep

14:00-15:25 (CEST)

**S.6.2 – Climate related impacts, risks and adaptation options III**

Chair: Francesco Pietro Colelli

- 14:00-14:05 Introduction
- 14:05-14:25 **Did with Endogenous Spillovers: Model and Application to Drought-Shocks on the Trade and Production of Wheat**  
**Sandy DALL'ERBA**, University of Illinois at Urbana-Champaign, United States  
Author(s): Sandy Dall'erba, André Chagas, William Ridley, Yilan Xu and Lilin Yuan
- 14:25-14:45 **Evaluation of Drought Economic Impacts on Agriculture in the Po River Basin (Northern Italy) through Models and Surveys**  
**Beatrice MONTELEONE**, University School for Advanced Studies IUSS Pavia, Italy  
Author(s): Beatrice Monteleone, Iolanda Borzì, Mario Martina, Brunella Bonaccorso
- 14:45-15:05 **A Tool for Assessing Climate Change Impacts on the Local Energy Sector**  
**Mauro MUSSIN**, ARPA Italy  
Author(s): Mauro Mussin, Mario Gregorio Piuri, Orietta Cazzuli, Matteo Zanetti, Gabriele Greco
- 15:05-15:25 **Intense Mediterranean Cyclones: Impacts and Predictability**  
**Carmen ALVAREZ-CASTRO**, University Pablo de Olavide, Spain  
Author(s): M. Carmen Álvarez-Castro, Nerea Rodríguez-Cañestro, David Gallego Puyol, Cristina Peña-Ortiz, Pedro Ribera, Davide Faranda

Fri  
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15:25 - 16:00 (CEST) – Lunch break

Fri  
24  
Sep

16:00 - 16:30 (CEST)

Reflections on the conference and Award session

## Participants' List

(last updated: 22 Sep 2021)

- Elena ALLEGRI**, CMCC Foundation, Italy  
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**Valentina ANDREOLI**, University of Turin, Italy  
**Marta ANTONELLI**, Barilla Center for Food and Nutrition, Italy  
**Carmela APREDA**, CMCC Foundation, Italy  
**Charles AXELSSON**, Ca' Foscari University of Venice, Italy  
**Antonio BALLARIN DENTI**, Fondazione Lombardia per l'Ambiente, Italy  
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**Elena BIANCO**, CMCC Foundation, Italy  
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**Filippo CALÌ QUAGLIA**, Ca' Foscari University of Venice, Italy  
**Francesco Pietro CAMPO**, Politecnico di Milano, Italy  
**Elisa CARRARI**, University of Florence, Italy  
**Veronica CASARTELLI**, CMCC Foundation and Ca' Foscari University of Venice, Italy  
**Claudio CASSARDO**, University of Turin, Italy  
**Luca CETARA**, Eurac Research, Italy  
**Annalisa CHERCHI**, Institute of Atmospheric Sciences and Climate – ISAC-CNR, Italy  
**Francesco COLELLI**, CMCC Foundation, Italy  
**Jose Maria COSTA SAURA**, University of Sassari, Italy  
**Gabriele CURCI**, University of L'Aquila, Italy  
**Maria Katherina DAL BARCO**, Ca' Foscari University of Venice, Italy  
**Sara DAL GESSO**, Amigo S.r.l., Italy  
**Sandy DALL'ERBA**, University of Illinois at Urbana-Champaign, United States  
**Marinella DAVIDE**, Ca' Foscari University of Venice, Italy and Harvard University, United States  
**Susanne DAVIDSON**, University of the Highlands and Islands, Scotland, United Kingdom  
**Antoine DECHEZLEPRÊTRE**, OECD, France  
**Enrica DE CIAN**, Ca' Foscari University of Venice, Italy  
**Serena DE MARCO**, Politecnico di Milano, Italy  
**Alessandro DELL'AQUILA**, ENEA, Italy  
**Ali DIDEVARASL**, University of Sassari, Italy  
**Francesco DI NATALE**, Università di Napoli Federico II, Italy  
**Maria Cristina FACCHINI**, Institute of Atmospheric Sciences and Climate (ISAC-CNR), Italy  
**Paola FAGGIAN**, RSE S.p.A., Italy  
**Giusy FEDELE**, CMCC Foundation, Italy  
**Chris FIELD**, Woods Institute for the Environment, Stanford University, USA  
**Federica FLAPP**, ARPA FVG, Italy  
**Giuseppe FRUSTACI**, Fondazione Osservatorio Meteorologico Milano Duomo, Italy  
**Damiano GIANELLE**, Fondazione E. Mach, Italy  
**Elena GIANESINI**, ARPA FVG, Italy  
**Dario GIAIOTTI**, ARPA FVG, Italy  
**Matteo GIULIANI**, Politecnico di Milano, Italy  
**Francesco GONELLA**, Ca' Foscari University of Venice, Italy  
**Silvio GUALDI**, CMCC Foundation, Italy  
**Riccardo HÉNIN**, CMCC Foundation, Italy

**Kerstin HÖTTE**, University of Oxford, Germany  
**Chung-Huang HUANG**, Taiwan Association for Low Carbon Society and Green Economy, Taiwan  
**Mark Z. JACOBSON**, Stanford University, USA  
**Ritika KAPOOR**, CMCC Foundation, Italy  
**Lavinia LAITI**, Agenzia Provinciale per la Protezione dell'Ambiente - Provincia autonoma di Trento, Italy  
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**Mita LAPI**, Fondazione Lombardia per l'Ambiente, Italy  
**Anna Le Gerstrøm Rode**, Aarhus University, Denmark  
**Cristian LUSSANA**, Norwegian Meteorological Institute, Norway  
**Marco MARCELLI**, University of Tuscia, Italy  
**Eddio MARINI**, ARPA FVG, Italy  
**Stefano MATERIA**, CMCC Foundation, Italy  
**Ronan MCADAM**, CMCC Foundation, Italy  
**Paola MERCOGLIANO**, CMCC Foundation, Italy  
**Gabriele MESSORI**, Uppsala University, Sweden  
**Alessandro MINIGHER**, ARPA FVG, Italy  
**Beatrice MONTELEONE**, University School for Advanced Studies IUSS Pavia, Italy  
**Matteo MUNTONI**, Bocconi University, Italy  
**Mauro MUSSIN**, ARPA, Italy  
**Daniel NAVARRO**, Fundacion Tecnalia Research & Innovation, Spain  
**Dario NICOLÌ**, CMCC Foundation, Italy  
**Roberta PADULANO**, CMCC Foundation, Italy  
**Massimiliano PALMA**, ENEA, SSPT-MET-CLIM, Italy  
**Antonello PASINI**, CNR, Italy  
**Daniele PEANO**, CMCC Foundation, Italy  
**Sergio PENA-NEIRA**, Universidad Mayor, Chile

**Fabrizio PICCAROLO**, Fondazione Lombardia per l'Ambiente, Italy  
**Alex PIVIDORI**, ARPA FVG, Italy  
**Arianna PORRONE**, University of Macerata, Italy  
**Alice PORTAL**, Università degli Studi di Milano - Bicocca, Italy  
**Marco QUATROSI**, University of Ferrara, Italy  
**Claudio RIBOTTA**, University of Sassari, Italy  
**Sandra RICART**, Politecnico di Milano, Italy  
**Nafeesa SAMAD**, University of Tuscia, Italy  
**Monia SANTINI**, CMCC Foundation, Italy  
**Miriam SARACENI**, University of Perugia, Italy  
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**Lorenzo SILVESTRI**, CIRIAF-CRC University of Perugia, Italy  
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**Andrea STACCIONE**, CMCC Foundation and Ca' Foscari University of Venice, Italy  
**Nicolò STORNI**, Politecnico di Milano, Italy  
**Silvia TERZAGO**, CNR and Institute of Atmospheric Sciences and Climate, Italy  
**Pierluigi TOMA**, University of Salento, Italy  
**Arianna TREVISIOL**, RSE S.p.a., Italy  
**Eirini TSARTSALI**, CMCC Foundation, Italy  
**Riccardo VALENTINI**, University of Tuscia, Italy  
**Chiara VANALLI**, Penn State University, United States  
**Donatella VIGNANI**, Istat, Italy  
**Domenico VITO**, Politecnico di Milano, Italy  
**Federica ZENNARO**, CMCC Foundation, Italy  
**Emmanuel Junior ZUZA**, The Open University, United Kingdom