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<th>Time</th>
<th>Wed, 21 Oct</th>
<th>Thu, 22 Oct</th>
<th>Fri, 23 Oct</th>
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<td>08:45-09:15</td>
<td>Registration of participants</td>
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<td>09:15-11:00</td>
<td>PARALLEL SESSION I</td>
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<td>PARALLEL SESSION 5</td>
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<td>Explore, predict and project climate variations and extremes</td>
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<td>Climate related impacts, risks and adaptation options</td>
<td>Risks and adaptation options in a warmer world</td>
<td>Mitigation technologies for ambitious climate targets</td>
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<td>Climate policies and transition pathways in the context of sustainable development</td>
<td>Climate action: societal transformations and behaviours</td>
<td>Special session: Economic modelling under climate change – case studies from Asia</td>
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<td>Coffee break</td>
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<td>11:30-12:30</td>
<td>KEYNOTE LECTURE</td>
<td>POSTER SESSION 2</td>
<td>KEYNOTE LECTURE</td>
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<td>Sabine Fuss</td>
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<td>Andra Meneganzin</td>
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<td>14:00-15:30</td>
<td>POSTER SESSION 1</td>
<td>KEYNOTE LECTURE</td>
<td>SISC General Assembly</td>
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<td>Scott Barrett</td>
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<td>Coffee break</td>
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<td>16:00-17:25</td>
<td>PARALLEL SESSION 2</td>
<td>PARALLEL SESSION 4</td>
<td>Reflections on the conference and Award session</td>
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<td>Urban areas: assessing, predicting and managing the current and future risk</td>
<td>Explore, predict and project climate variations and extremes</td>
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<td>Climate related impacts on natural and human systems</td>
<td>Climate services and their potential to support adaptation and risk management</td>
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<td>Climate policies and transition pathways in the context of sustainable development</td>
<td>Climate action: societal transformations and behaviours</td>
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**Partners**

[cmcc]

[With the support of]

[EAERE]
PARALLEL SESSION 1

9:15 – 11:00 (CEST)
S.1.1 – Explore, predict and project climate variations and extremes
Chair: C. Cassardo

09:15-09:20 Introduction

09:20-09:40 Atmospheric Fe supply has a negligible role in promoting marine productivity in the Glacial North Pacific Ocean
François Burgay, Paul Scherrer Institut, Switzerland
Author(s): F. Burgay, A. Spolaor, J. Gabrieli, G. Cozz, C. Turetta, P. Vallelonga, C. Barbante

09:40-10:00 Regional Arctic sea ice response to abrupt climate changes: a focus on Dansgaard-Oeschger events
Federico Scoto, CNR-ISAC, Italy
Author(s): F. Scoto, C. Barbante, A. Saiz-Lopez, P. Vallelonga, D. Dahl Jensen, A. Spolaor

10:00-10:20 200 years of Equilibrium-Line Altitude variability across the European Alps (1901-2100)
Renato R. Colucci, CNR - ISMAR, Italy
Author(s): M. Zebre, R.R. Colucci, F. Giorgi, N.F. Glasser, A.E. Racoviteanu, C. Del Gobbo

10:20-10:40 Paleoclimatological characterization of Grand Combin alpine site based on dust, organic fraction and heavy metals, in the framework of Ice Memory project.
Azzurra Spagnesi, Ca' Foscari University of Venice, Italy
Author(s): A. Spagnesi, F. De Blasi, F. Dallo, D. Zannoni, J. Gabrieli, C. Barbante

10:40-11:00 Alpine-wide trend assessment of total snow depth over recent decades from a harmonized database of validated in-situ observations
Alice Crespi, Institute for Earth Observation, Eurac Research, Bolzano, Italy, Italy
Wed 21 Oct

9:15 - 11:00 (CEST)

S.1.2 – Climate related impacts, risks and adaptation options
Chair: J. Mysiak

09:15-09:20  Introduction

09:20-09:40  5 kyr of fire history in the High North Atlantic Region: natural variability and ancient human forcing
Delia SEGATO, Ca’ Foscari University of Venice, Italy
Author(s): D. Segato, M. Del Carmen Villoslada Hidalgo, E. Barbaro, R.Edwards, P.Vallelonga, B. Vinther, N. Maffezzoli, D. Battistel, C. Barbante, A. Spolaor

09:40-10:00  Tipping Oceans in a Changing Climate
Alessandra CONVERSI, Consiglio Nazionale delle Ricerche - National Research Council, Italy
Author(s): A. Conversi

10:00-10:20  Climate Change Impacts on the Aquaculture Sector for European Islands
Lena SCHENKE, AquaBioTech Group, Malta
Author(s): L. Schenke, K. Hoevenaars, T. Bardocz, G. Piscane

Maria Katherina DAL BARCO, CMCC@Ca’ Foscari, Italy
Author(s): M.K. Dal Barco, E. Furlan, H. Vuong Pham, S. Torresan, A. Critto, A. Marcomini

10:40-11:00  C3S Demo Case Soil Erosion: Assessing Climate Change Impacts on Soil Erosion over Italy
Guido RIANNA, Centro Euro-Mediterraneo sui Cambiamenti Climatici, Italy

Wed 21 Oct

9:15 - 10:40 (CEST)

S.1.3 – Climate policies and transition pathways in the context of sustainable development
Chair: E. Verdolini

09:15-09:20  Introduction

09:20-09:40  Pathways of Transition and the Characteristics of Competing Technologies: A Taxonomy and a Policy Experiment
Kerstin HÖTTE, Bielefeld University, Germany
Author(s): Kerstin Hotte

09:40-10:00  Drivers of Climate Policies: A Machine Learning Approach
Angelika VOGT, Humboldt-Universität zu Berlin, Germany
Author(s): E. Caliskan, A. Hagen, A. Vogt

10:00-10:20  Energy Taxes, Public Debt and Endogenous Growth Engines in OECD Countries
Mahmoud HASSAN, Toulouse School of Economics, France
Author(s): M. Hassan, W. Oueslati, D. Rousseliere

10:20-10:40  A land-based approach for climate change mitigation in the livestock sector
Maria Vincenza CHIRIACÒ, Fondazione CMCC, Italy
Author(s): M.V. Chiriaco, R. Valentini
Reaching net-zero emissions by the middle of the century is a necessary condition for reaching the Paris climate goals according to the IPCC Special Report on 1.5°C Global Warming. Carbon Dioxide Removal (CDR) is an important component of all 1.5°C pathways with limited or no overshoot. While there is now more knowledge on the different technologies and practices for CO2 removal (CDR) and there is some flexibility to reduce the dependence on it through more ambitious emissions reductions via the demand side, it is clear that CDR will play a role (especially with further delays in increasing the emission reduction ambitions), though it cannot substitute for radical and swift emissions reductions. Which pathway is ultimately chosen - including the extent and type of carbon removal – will also be a societal choice. Still, few countries consider deliberation of CDR portfolios or policies for scaling up CDR in their current discussions on carbon neutrality. In this keynote I want to give an overview of the scenario space, options to withdraw CO2 from the atmosphere and illustrate the challenges of implementation using a country case.
Raising the ambition of climate action in the age of global emergencies

[POSTER] Orographic forcing and climate trends in Central Italy: using a validated regional dataset over Umbria to compute climate indices
Lorenzo SILVESTRI, CIRIAF-CRC, University of Perugia, Italy
Author(s): P. Bongioannini Cerlini, L. Silvestri, M. Saraceni

[POSTER] Spatio-temporal correlation of extreme climate indices and river flood discharges
Matteo PESCE, Politecnico di Torino, Italy
Author(s): M. Pesce, J. von Hardenberg, A. Viglione

[POSTER] Two centuries of Temperature Observations in the Alpine city of Trento (1816-2020)
Mattia MARCHIO, University of Trento, C3A - Center Agriculture Food Environment, Italy
Author(s): M. Marchio, M. Brunetti, L. Zaniboni, M. Vinante, L. Giovannini, D. Zardi

[POSTER] Validation of the convection-permitting regional reanalysis SPHERA: benefits of the high resolution in detecting severe weather events
Antonio GIORDANI, ARPAE-SIMC, Department of Physics and Astronomy (DIFA) - University of Bologna, Italy
Author(s): A. Giordani, I. Cerenzia, T. Paccagnella, S. Di Sabatino

Climate policies and transition pathways in the context of sustainable development

[POSTER] Sustainable Fashion for Climate Change
Alessia VACCIA, University of Lincoln, UK
Author(s): A. Vacca

Risks and adaptation options in a warmer world

[POSTER] Assessing the effects of urban morphology on air temperature in the Euro-Mediterranean context
Carmela APREDA, Centro Euro-Mediterraneo sui Cambiamenti Climatici, Italy
Author(s): C. Apreda, A. Reder, P. Mercogliano

[POSTER] Climate and ecological crisis: a systemic response to risks and vulnerabilities by strengthening sustainability, resilience and preparedness in Italy
Giovanna TAGLIACOZZO, Istat, Italy
Author(s): G. Tagliacozzo, A. Ferruzza

[POSTER] Climate change adaptation: water reuse practices identified by AQUARES Interreg
Sara ZANINI, Lombardy Foundation for the Environment, Italy
Author(s): S. Zanini, A. De Carli, M. Lapi, L. Cozzi, A. Ballarin Denti

[POSTER] Integrated application of ecosystem-based model and Bayesian Network on freshwater to explore the trade-offs among potential impacts and adaptation options changing world
Hung Vuong PHAM, CMCC@Ca’Foscari, Italy
Author(s): H.V. Pham, A. Sperotto, S. Torresan, A. Critto, Elisa Furlan, A. Marcomini

[POSTER] Resilience assessment for coastal systems to natural disasters: the case study of the Metropolitan City of Venice
Beatrice SAMBO, University of Ca’ Foscari, Italy
Author(s): B. Sambo, M. Bonato, A. Sperotto, J.H. Lambert, I. Linkov, A. Critto, S. Torresan, A. Marcomini

[POSTER] The impact of drought on the domestic water security of the Chilean population, in the context of climate change: a fuzzy-logic approach
Marco BILLI, Center for Climate and Resilience Research, Chile
Author(s): J. Navea, T. Monsalve, A. Allendes, N. Prieto, R. Calvo, M. Billi, A. Urquiza

Urban areas: assessing, predicting and managing the current and future risk

[POSTER] Anchoring transition imperatives within municipal structures: Resilience as a new approach for public action
Alix BURGUN, Sciences Po University and Sorbonne University, France
Author(s): A. Burgun, S. Maire

[POSTER] Ephemeral gardens, or spaces of necessary happiness
Maria MACCARRONE, Università IUAV di Venezia, Italy
Author(s): M. Maccarrone
[POSTER] Fuzzy Logic Modelling to assess high resolution spatial urban climatic risk Impact in Valparaiso, Chile
Nicolás ÁLAMOS, Universidad de Chile, Chile

[POSTER] Mapping supply and demand of urban ecosystem services
Helena DUCHKOVÁ, Global Change Research Institute of the Czech Academy of Sciences; Charles University in Prague, Czech Republic
Author(s): H.E. Duchkova, D. Vackarova

[POSTER] Participatory foresight methods as a tool for climate change adaptation planning, the case of the Czech Republic
Lenka SUCHÁ, Global Change Research Institute, Czech Academy of Sciences, Czech Republic
Author(s): L. Sucha, HE. Duchkova, D. Vackarova, P. Basta, E.K. Lorencova

**PARALLEL SESSION 2**

**Wed 21 Oct**

15:30 - 16:00 (CEST) – Coffee break

16:00-16:05 Introduction

16:05-16:25 Co-Production of Urban Climate Services under the SPF UK Climate Resilience Programme
Victoria RAMSEY, UK Met Office, United Kingdom
Author(s): V. Ramsey, C. Scannell, R. Parfitt, N. Garrett, N. Golding, E. Fuller, L. Vilarkin

16:25-16:45 Climate adaptation strategy development in small and medium-sized municipalities
Helena DUCHKOVÁ, Global Change Research Institute, Czech Academy of Sciences, Czech Republic
Author(s): H. Duchkova, L. Sucha, S. Vano, P. Basta, D. Vackarova, E.K. Lorencova

16:45-17:05 Integration of heterogenous data to high resolution temperature maps for urban planning and management in the ClimaMi project.
Giuseppe FRUSTACI, Fondazione Osservatorio Meteorologico Milano Duomo, Italy
Author(s): F. Giuseppe, E. Montoli, C. Lavecchia, S. Pilati, P. Turchiarulo

17:05-17:25 Flood hazard mapping in urban areas: modelling perspectives under climate change
Roberta PADULANO, Centro Euro-Mediterraneo sui Cambiamenti Climatici, Italy
Author(s): P. Mercogliano, R. Padulano, Guido Rianna, P. Costabile, C. Costanzo
<table>
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<th>Time</th>
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<tr>
<td>16:00 - 16:05</td>
<td>Introduction</td>
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| 16:05 - 16:25| **An estimate of solar resource and PV power production over Italy in a changing climate.**  
Riccardo BONANNO, RSE S.p.A. - Ricerca sul Sistema Energetico, Italy  
Author(s): R. Bonanno, M. G. Riva |
| 16:25 - 16:45| **Trends of phenological response to climate change and orography in Central Italy.**  
Miriam SARACENI, Department of Civil and Environmental Engineering (DICA) University of Perugia, Italy  
Author(s): P. Bongioannini Cerlini, M. Saraceni, L. Silvestri |
| 16:45 - 17:05| **Sustainable sport in a warmer world**  
Dario BATTISTEL, University Ca’ Foscari Venezia - Dept. Environmental Science Informatics and Statistics, Italy  
Author(s): D. Battistel, M. Benedetti, P. Cescon, G. Finotto, A. Gambaro, A. Pecci, O. Rossi |
| 17:05 - 17:25| **A Climate of War or Peace? Forecasting the Effect of Drought on Conflict Dynamics**  
Paola VESCO, Uppsala University, Sweden  
Author(s): P. Vesco |
|              |                                                                           |
| 16:00 - 16:05| Introduction                                                              |
| 16:05 - 16:25| **Measuring methane emissions from ruminants. Transposing lessons between different methods of greenhouse gas accounting for ambitious climate targets.**  
Elisavet ZOUPANIDOU, University of Geneva, Switzerland  
Author(s): E. Zoupanidou |
| 16:25 - 16:45| **Local climate change adaptation in the mountain region: an indicator-based decision support system methodology**  
Pasquale LA MALVA, “G. D’Annunzio” University of Chieti-Pescara, Italy  
Author(s): L. Cetara, P. La Malva, M. Pregnolato, A. Ballarin Denti |
| 16:45 - 17:05| **Anchoring transition imperatives within municipal structures: Resilience as a new method for public action**  
Alix BURGUN, Sciences Po University and Sorbonne University, France  
Author(s): A. Burgun, S. Maire |
| 17:05 - 17:25| **Mobilising finance for hydropower to achieve sustainable development and energy transition**  
Francesca LAROSA, Fondazione CMCC and Ca’ Foscari University of Venice, Italy  
Author(s): F. Larosa, J. Rickman, N. Ameli |
PARALLEL SESSION 3

Thu 22 Oct
09:15-11:00 (CEST)

S.3.1 – Explore, predict and project climate variations and extremes
Chair: V. Pavan

09:15-09:20  Introduction

09:20-09:40  Degradation of the climate signal preserved in Svalbard ice archives
Andrea SPOLAOR, Institute of Polar Sciences National Research Council of Italy (ISP-CNR), Italy

09:40-10:00  Scenes from a Monopoly: Renewable Resources and Quickest Detection of Regime Shifts
Daniele RINALDO, Cambridge University, UK
Author(s): N. Deopa, D. Rinaldo

10:00-10:20  Long term monthly precipitation database reconstruction for drought assessment
Ouafik BOULARIAH, University of Salerno, Italy
Author(s): O. Boulariah, A. Longobardi, V. Nobile, M. Sessa, P. Villani

10:20-10:40  Analysis of the observations of temperature carried out at the meteorological station of the institute of Physics
Claudio CASSARDO, Department of Physics - University of Turin, Italy
Author(s): C. Cassardo, S. Ziero, V. Andreoli, D. Bertoni, S. Ferrarese, A. Golzio, M. Manfrin

10:40-11:00  Chinese lockdown as aerosol reduction experiment
Hans VON STORCH, private, Deutschland
Author(s): H. von Storch, B. Geyer, L. Yan, V. Matthias, B. Rockel

Thu 22 Oct
09:15-10:40 (CEST)

S.3.2 – Risks and adaptation options in a warmer world
Chair: G. Messori

09:15-09:20  Introduction

09:20-09:40  Risks and options for action: a common equation for investigating analogies and differences between Covid-19 and climate crises
Antonello PASINI, CNR, Institute of Atmospheric Pollution Research, Italy
Author(s): A. Pasini, F. Mazzocchi

09:40-10:00  Identification of adaptation measures to cope with sea level rise in coastal areas
Alessandro DE BONIS TRAPELLEA, Sapienza, Italy
Author(s): A. De Bonis Trapella, F. Cioffi, U. Lall
Final Programme

Raising the ambition of climate action in the age of global emergencies

10:00-10:20 Coping with changing climate extremes in large regulated river basin
Matteo GIULIANI, Politecnico di Milano, Italy
Author(s): A. Castelletti, M. Giuliani, J.D. Quinn, P.M. Reed

10:20-10:40 Socioeconomic vulnerability on climate change. Poland case study
Malgorzata BURCHARD-DZIUBINSKA, University of Lodz, Poland
Author(s): M. Burchard-Dziubinska

Thu 22 Oct
09:15-10:20 (CEST)
S.3.3 – Climate action: societal transformations and behaviours
Chair: A. Ballarin-Denti

09:15-09:20 Introduction

09:20-09:40 Facing the Hard Truth: Evidence from Climate Change Ignorance
Pamela CAMPA, Stockholm Institute of Transition Economics, Stockholm School Of Economics, Sweden
Author(s): P. Campa, F. Szucs

09:40-10:00 Climate Regime Shift and Mental Health Adjusment
Paolo CIANCONI, Università Cattolica Rome Italy, Italy
Author(s): P. Cianconi, F. Grillo, B. Hanife, L. Janiri

10:00-10:20 Managing Climate Change Risk: The Case of the Italian Churches
Francesco DE MASI, University of Salento, Italy
Author(s): F. De Masi, D. Porrini

Thu 22 Oct
11:00 - 11:30 (CEST) – Coffee break

Thu 22 Oct
11:30 - 13:00 (CEST)
Poster Session 2

Climate action: societal transformations and behaviours

[POSTER] The necessary spaces: the reuse of road. Case study on the Nebrodi Mountains in Sicily around Floresta
Maria MACCARRONE, Università IUAV di Venezia, Italy
Author(s): M. Maccarrone

Climate policies and transition pathways in the context of sustainable development

[POSTER] Piano di adattamento ai cambiamenti climatici
Davide PINI, Università di Bologna, Italy
Author(s): D. Pini

Climate related impacts on natural and human systems

[POSTER] A Machine learning-based approach for water quality assessment: exploiting functionalities of Artificial Neural Networks in the Venice lagoon case study
Christian SIMEONI, CMCC@Ca’Foscari, Italy
Author(s): C. Simeoni, E. Furlan, A. Torcinovic, F. Pelosin, S. Vascon, A. Critto, M. Pelillo, A. Marcomini

[POSTER] Agricultural total factor productivity growth, technical efficiency, and climate variability in Sub-Saharan Africa
Frank BANNOR, PEERC, University of Johannesburg, South Africa
Author(s): F. Bannor, J. Dikgang, D. Kutela Gelo
Raising the ambition of climate action in the age of global emergencies

[POSTER] Climate Change, Armed Conflicts and Resilience
Mariagrazia D’ANGELI, Università degli Studi di Urbino Carlo Bo, Italy
Author(s): M. D’Angeli, G. Marin, E. Paglialunga

[POSTER] Climate Variability, Migration and Population in Kenya
Mélanie GITTARD, Paris School of Economics (PSE) and CIRED, France
Author(s): M. Gittard

[POSTER] Decomposition of the temperature-driven output losses in India: Plant-level evidence for the climate change adaptation policy
Olexiy KYRYCHENKO, CERGE-EI, Czech Republic
Author(s): O. Kyrychenko, M. Portnykh, T. Liu

[POSTER] Droughts and extreme events in agriculture: A comparison of three November - June periods in Italy
Antonella PONTRANDOLFI, Council for Agricultural Research and Economics, Italy
Author(s): A. Pontrandolfi, R. Aililia, F. De Natale, B. Parisse, A.G. Pepe

[POSTER] Impact of heatwaves on stroke and heart attacks in Sofia
Cvetan DIMITROV, National Center of Public Health and Analyses, Bulgaria
Author(s): Z. Spasova, T. Dimitrov

[POSTER] Impacts of Eastern Mediterranean Transient on marine biota: A review
Maurizio AZZARO, Institute of Polar Sciences, Italy
Author(s): M. Azzaro, G. Caruso, R.G. Maimone, F. Azzaro, F. Decembrini, M. Leonardi, A. Cosenza. F. Filicito, A. Lo Giudice, E. Crisafi, R. La Ferla

[POSTER] Impacts of Global Climate Change on Duration of Logging Season in Siberian Boreal Forests
Anna CHUGUNKOVA, Siberian Federal University, Russia
Author(s): A. V. Chugunkova, A.I. Pyzhev

[POSTER] Initial analysis of Essential Climate Variables from ESA’s Lake_CCI Satellite Data Package
Monica PINARDI, Consiglio Nazionale delle Ricerche, Istituto per il Rilevamento Elettromagnetico dell’Ambiente, Italy
Author(s): M. Pinardi, G. Free, M. Bresciani, C. Giardino, S. Simis, J.-F. Cretaux, C. Merchant, H. Yesou, C. Duguy (6), B. Coulon

[POSTER] Invasive alien species and climate change
Daniele PAGANELLI, Lombardy Foundation for the Environment - University of Pavia, Italy
Author(s): D. Paganelli, A. Occhipinti, M. Lapi, L. Cozzi, A. Ballarin Denti

[POSTER] Time of emergence of extreme climate-induced economic impacts
Predrag IGNJACEVIC, Vrije Universiteit Amsterdam, Nederland
Author(s): P. Ignjacevic, F. Estrada, W. Botzen

[POSTER] The inter-twinned crises: COVID-19 and climate crises on the vision of the One-Health concept
Domenico VITO, FLA -Polimi, Italy
Author(s): D. Vito

[POSTER] Weather and Crop Yields in Ethiopia: Evidence from Panel Data Analysis
Amsalu Woldie YALEW, Potsdam Institute for Climate Impact Research, Germany
Author(s): A.W. Yalew, C. Gornott, B. Schauberger

[POSTER] Integrating forest fire simulators for fire risk assessment in Apulia region
Jose Maria COSTA SAURA, University of Sassari, Italy
Author(s): J.M. Costa-Saura, V. Bacciu, C. Sirca, D. Spano

[POSTER] Swiss stone pine (Pinus cembra L.) tree-ring data as a proxy for extending glacier mass-balance series in the Italian Rhaetian Alps
Riccardo CERRATO, University of Pisa, Italy
Author(s): R. Cerrato, M.C. Salvatore, B.E. Gunnarson, H.W. Linderholm, L. Carturan, M. Brunetti, C. Baroni

[POSTER] Climate services and their potential to support adaptation and risk management

[POSTER] Mitigation technologies for ambitious climate targets

[POSTER] Artificial Ocean Alkalinization in a 5 to 10-year perspective
Beatriz BECCARI BARRETO, Politecnico di Milano, Italy/ Brazil
Author(s): B. Beccari Barreto, S. Caserini, P. Renforth
Thurs 22 Oct
14:00 - 15:00 (CEST)
PL.02 - Plenary Session 2
Chair: F. Bosello
The status and future perspectives for the global cooperation on climate change
Keynote speaker: Scott Barrett

Thurs 22 Oct
15:00 - 16:00 – Coffee break

PARALLEL SESSION 4

Thurs 22 Oct
16:00-17:45 (CEST)
S.4.1 – Explore, predict and project climate variations and extremes
Chair: J. Pal

16:00-16:05 Introduction

16:05-16:25 Interannual to decadal variability within and across the major Eastern Boundary Upwelling Systems
Giulia BONINO, Fondazione Centro Euro-Mediterraneo sui Cambiamenti Climatici, Italy
Author(s): G. Bonino, E. Di Lorenzo, S. Masina, D. Iovino

16:25-16:45 Northern Hemisphere atmospheric blocking in future climate in CMIP3, CMIP5 and CMIP6 models
Paolo DAVINI, Institute of Atmospheric Sciences and Climate (CNR-ISAC),
Author(s): P. Davini, F. D’Andrea

16:45-17:05 Heavy Daily Precipitation Events in the CMIP6 Worst-Case scenario: Projected Twenty-First-Century Changes
Enrico SCOCCIMARRO, Fondazione CMCC, Italy
Author(s): E. Scoccimarro, S. Gualdi

17:05-17:25 Local Atmospheric Response to Gulf Stream Sea Surface Temperature Front shifting: Impact of horizontal resolution in HighResMIP models
Luca FAMOSS PAOLINI, Ca’ Foscari University, Italy
Author(s): L. Famooss Paolini, A. Bellucci, P. Ruggieri, P. Athanasiadis

17:25-17:45 Trend analysis of flood quantiles in the Italian Alps
Pierluigi CLAPS, Politecnico di Torino, Italy
Author(s): P. Claps, I. Brignolo, D. Ganora, I. Monforte, A. Viglione
Raising the ambition of climate action in the age of global emergencies

**SISC Annual Conference**
21-23 Oct 2020

### Thu 22 Oct

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<tr>
<td>16:00-17:05</td>
<td><strong>S.4.2 – Climate services and their potential to support adaptation and risk management</strong>&lt;br&gt;Introduction</td>
<td>F. Larosa</td>
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<td>16:05-16:25</td>
<td><strong>Seasonal forecasts of mountain snow depth: an application in the Alps</strong>&lt;br&gt;Silvia TERZAGO, CNR-ISAC, Italy&lt;br&gt;Author(s): S. Terzago, G. Bongiovanni, F. Cali Quaglia, J. von Hardenberg</td>
<td></td>
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<td>16:25-16:45</td>
<td><strong>Climate Services for the Energy Sector: current state and future development.</strong>&lt;br&gt;Marcello PETITTA, ENEA, SSPT-MET-CLIM, Italy&lt;br&gt;Author(s): M. Palma, F. Catalano, I. Cionni, M. Petitta</td>
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<td>16:45-17:05</td>
<td><strong>MED-GOLD Living Lab 2020: the story of an online training event</strong>&lt;br&gt;Alessandro DELL'AZQUILA, ENEA, SSPT-MET-CLIM, Italy&lt;br&gt;Author(s): A. Dell’Aquila, S. Calmanti, L. Ponti, M. Bruno Soares, M. Pasqui, M. Sanderson, F. Caboni</td>
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<td>17:05-17:25</td>
<td><strong>Can Artificial Intelligence improve seasonal forecasts and inform reservoir operations?</strong>&lt;br&gt;Matteo GIULIANI, Politecnico di Milano, Italy&lt;br&gt;Author(s): M. Giuliani, M. Zaniolo, G. Davoli, P. Block, A. Castelletti</td>
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<td>17:25-17:45</td>
<td><strong>Considerations on the use of third party data in spatial interpolation for climatological applications</strong>&lt;br&gt;Cristian LUSSANA, The Norwegian Meteorological Institute, Norway&lt;br&gt;Author(s): C. Lussana</td>
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### Thu 22 Oct

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<th>Time</th>
<th>Event</th>
<th>Chair</th>
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<tr>
<td>16:00-17:05</td>
<td><strong>S.4.3 – Climate action: societal transformations and behaviours</strong>&lt;br&gt;Introduction</td>
<td>C. Cattaneo</td>
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<td>16:05-16:25</td>
<td><strong>The Scientists for Future South Tyrol initiative</strong>&lt;br&gt;Giacomo BERTOLDI, Eurac Research, Italy&lt;br&gt;Author(s): Scientist for Future South Tyrol team</td>
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<td>16:45-17:05</td>
<td><strong>Fostering transformation in individuals toward climate change by playing with challenges: an empirical study with secondary school students</strong>&lt;br&gt;Giulia TASQUIER, Alma Mater Studiorum – University of Bologna, Italy&lt;br&gt;Author(s): G. Tasquier, E. Cogo</td>
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PARALLEL SESSION 5

Fri 23 Oct 09:15-11:00 (CEST)
S.5.1 – Explore, predict and project climate variations and extremes
Chair: P. Ruggieri

09:15-09:20 Introduction
09:20-09:40 Assessment of Seasonal Forecasts Skill over the Mediterranean area
Filippo Calì Quaglia, Ca' Foscari University of Venice, Italy
Author(s): F. Cali Quaglia, S. Terzago, J. von Hardenberg
09:40-10:00 Seasonal prediction of ocean variables: towards user-relevant indicators
Ronan McAdam, Fondazione CMCC, Italy
Author(s): R. McAdam, S. Masina, S. Gualdi, G. Coppini
10:00-10:20 Predicting Climate Change over the multi-annual range
Alessio Bellucci, Centro EuroMediterraneo sui Cambiamenti Climatici, Italy
Author(s): A. Bellucci, P. Ruggieri, D. Nicoli, P. Athanasiadis, S. Materia, S. Gualdi
10:20-10:40 Changing atmospheric predictability in a changing climate
Gabriele Messori, Uppsala University, Sweden
Author(s): G. Messori, S. Scher, D. Faranda, C. Alvarez-Castro
10:40-11:00 Predictability of large scale drivers leading intense Mediterranean cyclones
Carmen Alvarez-Castro, UPO-CMCC, Spain
Author(s): M.C. Alvarez-Castro, S. Gualdi, P. Yiou, M. Vrac, R. Vautard, L. Cavicchia, D. Gallego, P. Ribera, C. Pena-Ortiz, D. Faranda

Fri 23 Oct 09:15-11:00 (CEST)
S.5.2 – Mitigation technologies for ambitious climate targets
Chair: A. Castelletti

09:15-09:20 Introduction
09:20-09:40 Fossil and renewable energy sources for a negative emission technology based on ocean alkalinity enhancement and hydrogen production: Comparison through a life cycle assessment
Francesco Pietro Campo, Politecnico di Milano, Italy
Author(s): F.P. Campo, S. Caserini, M. Grosso
09:40-10:00 Alkalination strategies to remove atmospheric CO2 and mitigate acidification in the Mediterranean Sea
Tomas Lovato, Fondazione CMCC, Italy
Author(s): T. Lovato, M. Butenschon, S. Masina, S. Caserini, M. Grosso
10:00-10:20 Cost analysis of carbon capture and storage: A review
Beatriz Beccari Barreto, Politecnico di Milano/ Heriot-Watt University, Italy/ Brazil
Author(s): B. Beccari Barreto, S. Caserini
Raising the ambition of climate action in the age of global emergencies

10:20-10:40 Enhanced Pressurized Weathering of Limestone as an option to store CO2: Technological aspects, advantages, limitations and research needed
Davide RIGHI, Politecnico di Milano, Italy
Author(s): D. Righi, G. Cappello, S. Caserini, M. Grosso

10:40-11:00 How does the interaction between environmental policy and intellectual property rights affect environmental innovation? A study of 7 OECD countries
Aneeq SARWAR, Swinburne University of Technology, Australia
Author(s): A. Sarwar

 Fri 23 Oct
09:15-11:00 (CEST)
S.5.3 – Special session: Economic modelling under climate change – case studies from Asia
Chair: Ulrike LEHR, Institute for Economic Structures Research, Germany

09:15-09:20 Introduction

09:20-09:40 Why Climate Resilient Economic Development Matters
Sebastian HOMM, Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), Germany
Author(s): S. Homm

09:40-10:00 Modeling frameworks for different levels of expertise
Frank HOHMANN, GWS mbH, Germany
Author(s): F. Hohmann

10:00-10:20 Economics of climate change adaptation in a small country in transition – the case of Georgia
Markus Flaute, Institute for Economic Structures Research, Germany
Author(s): M. Flaute, U. Lehr

10:20-10:40 Economics of climate change adaptation in a resource-based economy – the case of Kazakhstan
Anett GROßMANN, GWS mbH, Germany
Author(s): A. Großmann, F. Hohmann

10:40-11:00 Economics of climate change adaptation in a highly vulnerable economy - the case of Vietnam
Christoph SCHULT, Halle Institute for Economic Research, Germany
Author(s): C. Schult

 Fri 23 Oct
11:00 - 11:30 (CEST) – Coffee break

 Fri 23 Oct
11:30 - 12:30 (CEST)
PL.03 - Plenary Session 3
Chair: S. Caserini
From niche construction to ecological traps: an evolutionary perspective on anthropogenic climate change
Keynote speaker: Andra Meneganzin

Climate change has historically been an evolutionary determinant for our species, affecting both hominin evolutionary innovations and extinction rates, and the early waves of migration and expansion outside Africa. Today Homo sapiens has turned itself into a major geological force, able to cause a biodiversity crisis comparable to previous mass extinction events, shaping the Earth surface and impacting biogeochemical cycles and the climate at a global level. We argue that anthropogenically driven climate change must be understood in terms of a monumental niche construction process, generating long-term ecological inheritance and eco-evolutionary feedbacks that are putting our health and well-being and those of future generations at risk. We then list five major sources of climate change counter-intuitiveness,
highlighting how evolved cognitive biases and heuristics may stand in the way of providing effective responses within tight deadlines. Drawing on our framing of the climate breakdown, we finally call for an evolutionary perspective in approaching the adaptive challenge posed by climate change: we argue that putting the brakes on a genuine self-endangering evolutionary trap ultimately depends on our counteractive niche constructing abilities, played at the level of our institutional and innovation capacity.