

## CURRICULUM VITAE



### PERSONAL INFORMATION

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Sex Male  
Nationality Italian  
Date of Birth 25/08/1973  
Working Address VIA PIERO GOBETTI 101, 40129, BOLOGNA, ITALY

### WORK EXPERIENCE

- From April 2020-present Senior Research Scientist  
Italian National Research Council - Institute of Atmospheric Sciences and Climate (CNR-ISAC).
- Main activities and responsibilities
  - Chair of the Land and Vegetation Working Group in the EC-Earth consortium for the development of the European Earth System Model based on the ECMWF seasonal forecasting system; and member of the EC-Earth Task Team for the preparation and coordination of the contribution to CMIP7.
  - Co-leader of the Spoke 4 – Earth and Climate of the National Research Centre for High Performance Computing, Big Data and Quantum Computing (ICSC; <https://www.supercomputing-icsc.it/en/icsc-home/>) funded by the Next Generation EU (Mission 4 - Centres of Excellence); Responsible and Principal Investigator of CNR contribution to the Spoke 4 – Earth and Climate Spoke in ICSC.
  - Responsible and Principal Investigator of EU Horizon Europe project OptimESM (Optimal High Resolution Earth System Models for Exploring Future Climate Change; <https://optimesm-he.eu>; [2023-2027]).
  - Responsible and Principal Investigator of EU H2020 project CONFESS (Consistent representation of temporal variations of boundary forcings in reanalyses and seasonal forecasts; [2020-2024], <https://confess-h2020.eu>)
  - Member of the Climate Change Working Group established as part of the Group on Earth

Observations (GEO).

- Responsible and Principal Investigator of the special project ECMWF SPITALEs (Exploit observations to constrain land cover, vegetation and hydrology processes for improved near-term climate predictions over land [2022-2024].
- Convener of the session: Challenges in climate prediction: multiple time-scales and the Earth system dimensions; European Geosciences Union General Assembly [2019-2024], Austria.  
Link [2024 edition]: <https://meetingorganizer.copernicus.org/EGU24/session/49410>
- Co-convener of the session: Climate change in Mediterranean-type climate zones; European Geosciences Union General Assembly 2022, Austria.  
<https://meetingorganizer.copernicus.org/EGU22/session/42612>
- Co-convener of the session: AS23 - Earth System Predictability, Prediction and Projection; Asia Oceania Geosciences Society Annual Meeting [2021, 2022, 2024], Link [2022 edition]: [https://www.asiaoceania.org/aogs2022/public.asp?page=sessions\\_and\\_convener.asp](https://www.asiaoceania.org/aogs2022/public.asp?page=sessions_and_convener.asp)
- EC-Earth reference member of the Land Surface, Snow and Soil Moisture Model Intercomparison Project (LS3MIP).
- Member of the APEC Climate Center (APCC) Advisory Group [since 2020].
- Supervisor of PhD students: Fransje van Oorschoot at Delft University of Technology working on "Improving the representation of hydrological processes related to vegetation and the vegetation's root zone in land surface models"; Vincenzo Senigalliesi at University of Bologna [PhD Programme on Future Earth, Climate Change and Societal Challenges] working on "Hydro-climatological transition in the Mediterranean Climate Regions" and Thomas dal Monte at University of Pavia [PhD in Sustainable Development and Climate change] working on "Predictability and prediction of droughts through seasonal climate forecasts".
- Supervisor of Post-docs/researchers: post-doc and junior researcher Emanuele Di Carlo, seasonal-to-decadal prediction sensitivity to improved land surface modelling – EU H2020 CONFESS project and ICSC Spoke4 Earth and Climate; Junior Researcher Guido Davoli, improve parameterizations of surface and gravity drag – ICSC Spoke4 Earth and Climate; Post-doc Marco Possega, modeling of land-atmosphere interactions and study of the feedbacks between drought extremes/transitions and the large-scale circulation – Horizon Europe OptimESM project.
- Co-coordinator of the research division focused on "Climate and Meteorology, Modelling and Earth Observations (CAMEO; <https://www.isac.cnr.it/en/temi-di-ricerca/cameo>)". [2021-2024].
- Editor for the EGU Peer Reviewed Journal "Earth System Dynamics" [2010-2022].
- Guest Visiting Lecturer at the Vrije Universiteit Amsterdam – Institute for Environmental Studies (IVM) [2020-2021].

• From January 2017 to March 2020

▪ Senior Research Scientist

Royal Netherlands Meteorological Institute (KNMI) - R & D Weather and Climate Models

• Main activities and responsibilities

- Grantee of an Intra-European Individual Fellowship (IF-EF) in the framework of the H2020 Marie Skłodowska-Curie Actions (call H2020-MSCA-IF-2015) for the project PROCEED (PROcess-based sEamless development of useful Earth system predictions over land) [Start date 1st January 2017].  
<https://www.knmiprojects.nl/projects/proceed>
- Secondment Visiting ECMWF in the frame of PROCEED project [6-months in the 2017/2019 period]
- Leader of Work Package (WP2 - Optimization of climate prediction performance) in the H2020 project SECLI-FIRM (The Added Value of Seasonal Climate Forecasts for Integrated Risk Management Decisions; <http://www.secli-firm.eu/>).
- Chair of the Land and Vegetation Working Group in the EC-Earth consortium for the development of the European Earth System Model based on the ECMWF seasonal forecasting system.
- Responsible and Principal Investigator of the special project ECMWF SPITALEs (Go Beyond Current Limitations of Climate Predictions over Land [2013-2018, 2019-2021];
- Responsible and Principal Investigator of the special project ECMWF SPNLALES (Decadal climate predictions: exploit vegetation dynamics and improve fire risk assessment ( [2018-2019];
- Convener of the session: (A014) Challenges in Climate Prediction: Seasonal-to-Decadal Climate Predictability and the Earth System Dimension; American Geophysical Union Fall Meeting 2019, San

Francisco, USA.

Link: <https://agu.confex.com/agu/fm19/prelim.cgi/Session/81836>

- Convener of the session: Challenges in climate prediction: multiple time-scales and the Earth system dimensions; European Geosciences Union General Assembly 2019, Austria.  
Link: <https://meetingorganizer.copernicus.org/EGU2019/session/31725>
- Convener of the session: Earth System Predictability, Prediction and Application; Asia Oceania Geosciences Society 2018, Honolulu, Hawaii (US).  
Link: <https://www.meetmatt-svr3.net/aogs/aogs2018/mars2/confSessionView.asp?slID=152>
- Convener of the session CL3.03: Earth System Prediction and Application (co-organized); European Geosciences Union General Assembly 2018, Austria.  
Link: <http://meetingorganizer.copernicus.org/EGU2018/session/27962>
- Convener of the session: Land-climate interactions from models and observations: Implications from past to future climate; European Geosciences Union General Assembly 2013-2018, Austria. Link to 2018 edition: <http://meetingorganizer.copernicus.org/EGU2018/session/26428>
- Editor for the EGU Peer Reviewed Journal “Earth System Dynamics”.
- Guest Lecturer at the Vrije Universiteit Amsterdam – Institute for Environmental Studies (IVM).
- Supervisor of Master student at Delft University of Technology; Master Thesis on “The hydrologically active rootzone in climate models”

• From 23 December 2010 to July 2020  
(on leave from January 2017 while  
keeping affiliation)

Senior Research Scientist

Italian National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA) Energy & Environment Modeling Unit (Climate & Impact Modeling Lab).

[www.enea.it](http://www.enea.it)

• Main activities and responsibilities

- In charge of implementing a new research activity at ENEA by leading a team focused on global climate modeling, analysis and predictability, with a particular attention to the end-users applications.
- Responsible and Principal Investigator of the ENEA contribution to the EU-FP7 project SPECS (Seasonal-to-decadal climate Prediction for the improvement of the European Climate Services [2012-2017], GA 308278)
- Responsible and Principal Investigator of the special project ECMWF SPITALEs (Go Beyond Current Limitations of Climate Predictions over Land [2013-2015];
- Responsible and Principal Investigator of the ENEA contribution to the EC-Earth consortium for the development of the European Earth System Model based on the ECMWF seasonal forecasting system.
- Responsible and Principal Investigator of the ENEA contribution to the EU Horizon 2020 (H2020) project CRESCENDO (Coordinated Research in Earth Systems and Climate: Experiments, Knowledge, Dissemination and Outreach [2015-2019])
- Convener of the session: Land-climate interactions from models and observations: Implications from past to future climate; European Geosciences Union General Assembly 2013-2018, Austria. Link to 2018 edition: <http://meetingorganizer.copernicus.org/EGU2018/session/26428>
- Academic activity at the University of Venezia Cà Foscari: Earth System Dynamics class in the PhD Programme in Science and Management of Climate Change.
- Editor for the EGU Peer Reviewed Journal “Earth System Dynamics”.
- Supervisor of Post-docs/researchers: Junior Researcher Matteo De Felice, seasonal-to-decadal prediction and optimization of forecasts for end-users in the energy sector – EU FP7 SPECS project. Post-doc and junior researcher Franco Catalano, study and modeling of land-atmosphere interactions and prediction sensitivity to improved land surface representation – EU-FP7 SPECS and H2020 CRESCENDO projects.

• From September 2012 to December 2013

People Marie Curie Actions program Grantee – Outgoing Fellowship at the International Pacific Research Center (IPRC), University of Hawaii at Manoa, HI, USA.

• Main activities and responsibilities

- Granted support by European Commission for the two years project called Performance and usefulness of CLimate predictions: Beyond current liMITationS (CLIMITS,

<https://cordis.europa.eu/project/id/303208>) in the framework of the FP7 People Marie Curie Actions program (International Outgoing Fellowship).

- Development of the grand multi-model obtained by combining retrospective seasonal forecasts from the five European and eleven Asian-Pacific CGCMs. Assessment of the maximum level of prediction performance currently attainable at seasonal time-scale through the multi-model approach.
- Enhancement of forecasts performance over land through improved land surface representation in the state-of-the-Art Climate model developed at IPRC (POEM2). Coupling of the POEM2 GCM with the European land surface Model ORCHIDEE.
- Supervisor of Research assistant: Tianje Wu, land surface modeling and sensitivity of seasonal predictions to improved land initialization.

• From April 2007 to 22 December 2010

Junior Research Scientist

Centro Euro-mediterraneo sui Cambiamenti Climatici (CMCC)

[www.cmcc.it](http://www.cmcc.it)

• Main activities and responsibilities

- Leader of the modeling team that developed the Intraseasonal-to-Seasonal Climate Prediction System based on the CMCC CGCM.
- Contribution to the multi-model Intra-Seasonal Variability Hindcast Experiment (ISVHE).
- Development of a new land surface and dynamical vegetation model called "Surface Interactive Land Surface Model" (SILVA).
- Design and Implementation of pre-operational CMCC Seasonal Climate Predictions.
- Contribution to the development of the new European multi-model seasonal prediction system (EU EU-FP6 ENSEMBLES framework).
- Implementation of the land carbon cycle as part of the interdisciplinary effort performed at CMCC for the development of a "State of the Art" Earth System Model for scenario simulation studies.
- Contribution to EU-FP7 CLIMAFRICA (Climate Change Prediction in Sub-Saharan Africa: Impacts and Adaptations) project. While at CMCC (2009-2010) I served as leader of WP2 (Feedbacks between climate variability/changes and the land surface. Improving modelling seasonal to decadal climate predictions).
- Supervisor of PhD students: Stefano Materia, PhD in Geophysics, University of Bologna (Italy) working on "A new representation of large river catchments in the simulation of global climate".
- Supervisor of research assistant: Andrea Borrelli, implementation and use of pre-operational semi-automatic tools and procedures for the delivery of ensemble seasonal forecasts based on the CMCC CGCM. Analysis of issued ensemble seasonal predictions.

• From April 2006 to March 2007

Post-Doc

National Institute for Geophysics and Volcanology (INGV) - Dynamic Climatology Unit

[www.ingv.it](http://www.ingv.it)

• Main activities and responsibilities

This employment contract was funded by the EU-FP6 ENSEMBLES project (Research Theme 4) with the following main activities and achievements:

- Study of the seasonal-to-interannual predictability of climate anomaly using ensemble forecasting systems based on Coupled General Circulation Models,
- Contribution to the development of the CMCC Earth System Model,
- Sensitivity of surface climate simulation to perturbation of land-surface parameters.
- Improve representation of land surface in the INGV-CMCC GCM.
- Study of the sensitivity of Climate simulation to the improvement of land-surface representation.

• From April 2002 to March 2006

• Graduate Research Assistant  
National Institute for Geophysics and Volcanology (INGV) - Dynamic Climatology Unit  
[www.ingv.it](http://www.ingv.it)

• Main activities and responsibilities

- From April 2002 to September 2003, graduate research assistant at INGV working on the EU project DEMETER (Development of a European Multimodel Ensemble system for seasonal to interannual prediction).
- From October 2003 to September 2004, graduate research assistant at INGV working on the Italian project called "Studio di fattibilità di un Centro EuroMediterraneo per i cambiamenti climatici" (English translation "Feasibility study for a Euro-Mediterranean Centre for Climate Change").
- From October 2004 to March 2006, graduate research assistant at INGV working on the Italy-USA collaboration program on Climate Change.

## EDUCATION AND TRAINING

• 12 July 2006

PhD in Geophysics Level 8EQF  
University of Bologna Alma  
Mater Studiorum, Italy  
Thesis "Effects of Land Surface and Vegetation Processes on the Climate Simulated by an Atmospheric General Circulation Model"

Spring Semester 2005, PhD classes at University of Maryland (Department of Atmospheric & Oceanic Science), College Park, Maryland, USA.

• 20 March 2002

Degree in Environmental Sciences (110/110 cum laude) Level 7EQF  
University of Bologna Alma  
Mater Studiorum, Italy

## Further education and training

PhD classes at University of  
Maryland

- January - April 2005, Statistical Methods in Meteorology and Oceanography Prof. Eugenia Kalnay; University of Maryland, College Park, Maryland (USA).
- January - April 2005, Atmospheric and Oceanic Climate Prof. Ning Zeng; University of Maryland, College Park, Maryland (USA).
- January - April 2005, Dynamics of the atmosphere and oceans II (METO611), Prof. James Carton; University of Maryland, College Park, Maryland (USA).

Summer Schools and Courses

- 14-16 June 2021, "Data science with R" at CINECA – The event organizer Giorgio Pedrazzi, Bologna, Italy
- 12-16 April 2021, "Introduction to Python programming" at CINECA – The event organizer Fabio Pitari, Bologna, Italy
- 3-5 November 2004, Training course on: "PALM RESEARCH 2.2.0". (Lecturer Dr. Andrea Piacentini), Bologna, Italy
- 9-27 August 2004, "Targeted training activity: Course on climate dynamics for climate research centres and University lectures", ICTP, Trieste, Italy.
- 11-14 May 2004, "Introduction to Message-Passing programming" at CINECA, Bologna, Italy.
- 3-14 June 2002, Course/workshop/conference on: "El Nino and Tropical Ocean-Atmosphere Interactions" (directed by G. Philander and F. Molteni), ICTP, Trieste, Italy.

## PERSONAL SKILLS

MOTHER TONGUE

**ITALIAN**

OTHER LANGUAGES

- Understanding
  - Writing
  - Speaking

### **ENGLISH**

C1

C1

C1

- Understanding
  - Writing
  - Speaking

### **DUTCH**

A1

A1

A1

- Understanding
  - Writing
  - Speaking

### **GERMAN**

Limited (Secondary school)

Limited (Secondary school)

Limited (Secondary school)

RESEARCH INTERESTS

- Study and modelling of the land surface and of the land-climate interactions and feedbacks.
- Progresses towards the development of seamless Earth system models and predictions.
- Exploit Earth observations to constrain land model complexity toward next generation of Earth system models.
- Study of the interactions and feedbacks between climate and hydrological processes and of the modulation by the Earth's biosphere
- Land carbon cycle modelling in "State of the Art" Earth System Models.
- Development of climate predictions and maximization of prediction performance and value to end-users.
- Study of the seasonal-to-decadal predictability of climate anomalies using ensemble forecasting systems based on Coupled General Circulation Models.
- Initialization and modeling of the coupled ocean-atmosphere processes
- Big Data and emerging technologies for modeling and end-user applications
- Coupling techniques between atmospheric general circulation models and other components of the climate system

COMPUTER SKILLS

Operating systems: UNIX and Linux/MAC OSX/WINDOWS

Programming languages: excellent skill in FORTRAN77/90/95, shell scripting, MATLAB and parallel programming (MPI, OpenMP); good knowledge of Phyton and limited experience with R;

Graphic Software known and used: MATLAB, GRADS, R, FERRET, NCL, Phyton

Large experience with developing and maintaining large scientific codes on high performance computing facilities such as NEC SX4/6/8/9, IBM POWER6/7, Linux clusters, Cray XC40 clusters, Atos Sequana XH2000.

Good knowledge and extensive use of version control software for the management of scientific codes: subversion (svn), perforce and gitlab.

The experience on programming languages follows from the expertise gained while working with different numerical models, like ECHAM4, ECHAM5, IFS (atmospheric GCMs), OASIS versions 2 3 4 (coupler), OPA8.2 NEMO POP (ocean GCMs), ARNO scheme, ORCHIDEE, VEGAS, SILVA, HTESSEL, ecLand (land-surface models) and associated coupled models (SINTEX GCM, INGV-CMCC GCM, CMCC ESM, POEM2 GCM, EC-Earth)

Large experience in the design, implementation and use of pre-operational and operational semi-automatic tools and procedures for the delivery of ensemble forecasts including recipes to (i) perform preliminary checks of the quality of the initial conditions (ii) perform perturbed ensemble forecasts, (iii) monitor the timely progression of the forecasts and provide feedbacks to the user in case of emerging problems, (iv) perform preliminary checks of the physical plausibility and of the quality of the forecasts.

DRIVING LICENSE

AB

## Peer-Reviewed Publications

**h-index 25** (source Google Scholar), with over 1700 citations in the last 5 years.

- Liu, L., Fisher, R.A., Douville, H., Padrón, R.S., Berg, A., Mao, J., **Alessandri, A.**, Kim, H., and Seneviratne, S.I., 2024: No constraint on long-term tropical land carbon-climate feedback uncertainties from interannual variability. *Commun. Earth Environ.* (Nature publishing), 5, 348 (2024). <https://doi.org/10.1038/s43247-024-01504-6>
- van Oorschot, F., van der Ent, **Alessandri, A.**, and Hrachowitz, M., 2024: Influence of irrigation on root zone storage capacity estimation, *HESS*, 28, 2313–2328, <https://doi.org/10.5194/hess-28-2313-2024>
- Salerno, F., Guyennon, N., Yang, K., Shaw, T.E., Lin, C., Colombo, N., Romano, E., Gruber, S., Bolch, T., **Alessandri A.**, and co-authors, 2023: Local cooling and drying induced by Himalayan glaciers under global warming. *Nat. Geosci.* 16, 1120–1127. <https://doi.org/10.1038/s41561-023-01331-y>
- van Oorschot, F., van der Ent, R. J., Hrachowitz, M., Di Carlo, E., Catalano, F., Boussetta, S., Balsamo, G., and **Alessandri, A.**, 2023: Interannual land cover and vegetation variability based on remote sensing data in the HTESSEL land surface model: implementation and effects on simulated water dynamics, *Earth Syst. Dynam.*, 14, 1239–1259, <https://doi.org/10.5194/esd-14-1239-2023>
- Döscher, R., Acosta, M., **Alessandri, A.**, Anthoni, P., Arneth, A., Arsouze, T., Bergmann, T., and co-authors, 2022: The EC-Earth3 Earth System Model for the Climate Model Intercomparison Project 6, *Geosci. Model Dev.*, 15, 2973–3020, <https://doi.org/10.5194/gmd-15-2973-2022>
- Van Oorschot, F., Van Der Ent, R.J., Hrachowitz, M., **Alessandri, A.**, 2021: Climate-controlled root zone parameters show potential to improve water flux simulations by land surface models. *Earth System Dynamics*, 12 (2), pp. 725-743. <https://doi.org/10.5194/esd-12-725-2021>
- **A. Alessandri**, F. Catalano, M. De Felice, B. van den Hurk, and G. Balsamo, 2021: Varying Signatures of Surface Albedo Feedback on the Northern Hemisphere Land Warming, *Environ. Res. Lett.*, 16, 034023. <https://doi.org/10.1088/1748-9326/abd65f>
- D. Peano, S. Materia, A. Collalti, **A. Alessandri**, A. Anav, A. Bombelli, S. Gualdi, 2019: Variability of simulated and observed growing season onset/offset. Accepted in *JGR biogeosciences*. 124, 3569–3587. <https://doi.org/10.1029/2018JG004881>
- G. Di Capua, M. Kretschmer, J. Runge, **A. Alessandri**, R. Donner, B. van den Hurk, R. Vellore, R. Krishnan, and D. Coumou, 2019: Long-lead empirical forecasts of the Indian Summer Monsoon Rainfall based on causal precursors. Accepted in *Weather and Forecasting*. 34 (5): 1377–1394. <https://doi.org/10.1175/WAF-D-19-0002.1>
- M. De Felice, M. B. Soares, **A. Alessandri**, A. Troccoli, 2019: Scoping the potential usefulness of seasonal climate forecasts for solar power management, *Renew. Energ.*, 142, 215-223, <https://doi.org/10.1016/j.renene.2019.03.1342019>. link at preprint: <https://eartharxiv.org/vfn35>
- **Alessandri, A.**, M. De Felice, F. Catalano, J-Y. Lee, B. Wang, D-Y. Lee, J-H. Yoo, A. Weisenheimer, 2018: Grand European and Asian-Pacific multi-model seasonal forecasts: maximization of skill and of potential economical value to end-users, *Clim. Dyn.*, 50 (7-8), 2719-2738 <https://doi.org/10.1007/s00382-017-3766-y>
- **Alessandri, A.**, F. Catalano, M. De Felice, B. Van Den Hurk, F. Doblaz Reyes, S. Boussetta, G. Balsamo, P. Miller, 2017: Multi-scale enhancement of climate prediction over land by increasing the model sensitivity to vegetation variability in EC-Earth, *Clim. Dyn.* <https://doi.org/10.1007/s00382-016-3372-4>
- van den Hurk, B., Kim, H., Krinner, G., Seneviratne, S. I., Derksen, C., Oki, T., Douville, H., Colin, J., Ducharme, A., Cheruy, F., Viovy, N., Puma, M. J., Wada, Y., Li, W., Jia, B., **Alessandri, A.**, Lawrence, D. M., Weedon, G. P., Ellis, R., Hagemann, S., Mao, J., Flanner, M. G., Zampieri, M., Materia, S., Law, R. M., and Sheffield, J., 2016: LS3MIP (v1.0) contribution to CMIP6: the Land Surface, Snow and Soil moisture Model Intercomparison Project – aims, setup and expected outcome, *Geosci. Model Dev.*, 9, 2809-2832, <https://doi.org/10.5194/gmd-9-2809-2016>
- F. Catalano, **A. Alessandri**, M. De Felice, Z. Zhu, R. B. Myneni, 2016: Observationally based analysis of land–atmosphere coupling, *Earth Syst. Dynam.*, 7, 251-266,



<https://doi.org/10.5194/esd-7-251-2016>

- Cherchi A, Annamalai H, Masina S, Navarra A, **Alessandri A**, 2016: 21st century projected summer mean climate in the Mediterranean interpreted through the monsoon-desert mechanism. *Clim Dyn* <https://doi.org/10.1007/s00382-015-2968-4>
- **Alessandri A**, A. Borrelli, A. Cherchi, J-Y. Lee, B. Wang, S. Materia, and A. Navarra, 2015: Prediction of Indian summer monsoon onset using dynamical sub-seasonal forecasts. *Mon. Wea. Rev.*, **143**, 778–793, <https://doi.org/10.1175/MWR-D-14-00187.1>
- Mariotti A., Y. Pan, N. Zeng, and **A. Alessandri**, 2015: Long-term climate change in the Mediterranean region in the midst of decadal variability. *Clim. Dyn.*, **44**, 1437-1456.
- Anav, A., A. De Marco, C. Proietti, **A. Alessandri**, A. Dell'Aquila, I. Cionni, P. Friedlingstein, D. Khvorostyanov, L. Menut, E. Paoletti, P. Sicard, S. Sitch, and M. Vitale, 2015: Comparing concentration-based (AOT40) and stomatal uptake (PODY) metrics for ozone risk assessment to European forests, *Global Change Biol.*, **22**(4), 1608-1627, <https://doi.org/10.1111/gcb.13138>
- **Alessandri A.**, M. De Felice, N. Zeng, A. Mariotti, Y. Pan, A. Cherchi, J-Y. Lee, B. Wang, K-J. Ha, P. Ruti, and V. Artale, 2014: Robust assessment of the expansion and retreat of Mediterranean climate in the 21st century. *Nature Sci. Rep.*, **4**, 7211, <https://doi.org/10.1038/srep07211>
- De Felice, M, **A. Alessandri**, and F. Catalano, 2014: Seasonal Climate Forecasts for medium-term Electricity Demand Forecasting. *Applied Energy*, <https://doi.org/10.1016/j.apenergy.2014.10.030>
- Materia, S., A. Borrelli, A. Bellucci, **A. Alessandri**, P. Di Pietro, P. Athanasiadis, A. Navarra, and S. Gualdi, 2014: Impact of atmosphere and land surface initial conditions on seasonal forecast of global surface temperature. *J. Climate*, **27**, 9253–9271. <https://doi.org/10.1175/JCLI-D-14-00163.1>
- H-I. Jeong, J-B. Ahn, J-Y. Lee, **A. Alessandri**, and H. Hendon, 2014: Interdecadal Change of Interannual Variability and Predictability of Two Types of ENSO, *Clim. Dyn.*, **44**, 1073-1091, <https://doi.org/10.1007/s00382-014-2127-3>
- Jia, X, Lee J-Y, **Alessandri A.**, and Ha K-J, 2013: Interdecadal change in the Northern Hemisphere seasonal climate prediction skill: Part I. The leading forced mode of atmospheric circulation. *Clim. Dyn.*, **43** (5-6), 1595-1609, <https://doi.org/10.1007/s00382-013-1988-1>
- Lee, D. Y., Ahn, J-B., Ashok, K. and **Alessandri, A.**, 2013: Improvement of grand multi-model ensemble prediction skills for the coupled models of APCC/ENSEMBLES using a climate filter. *Atmosph. Sci. Lett.*, **14**: 139–145. <https://doi.org/10.1002/asl2.430>
- M. De Felice, **A. Alessandri**, and P. M. Ruti, 2013: “Electricity Demand Forecasting over Italy: Potential Benefits using Numerical Weather Prediction models,” *Electric Power Systems Research*, vol. 104, pp. 71-79.
- **Alessandri A.**, P.G. Fogli, M. Vichi, and N. Zeng, 2012: Strengthening of the hydrological cycle in future scenarios: atmospheric energy and water balance perspective, *Earth Syst. Dynam.*, **3**, 199–212.
- **Alessandri A.**, A. Borrelli, A. Navarra, A. Arribas, M. Déqué, P. Rogel, and A. Weisheimer, 2011: Evaluation of probabilistic quality and value of the ENSEMBLES multi-model seasonal forecasts: comparison with DEMETER. *Mon. Wea. Rev.*, **139** (2), 581-607, <https://doi.org/10.1175/2010MWR3417.1>
- **Alessandri A.**, A. Borrelli, S. Gualdi, E. Scoccimarro, and S. Masina, 2011: Tropical cyclone count forecasting using a dynamical Seasonal Prediction System: sensitivity to improved ocean initialization, *J. Climate*, **24** (12), 2963-2982. <https://doi.org/10.1175/2010JCLI3585.1>
- M. Vichi, E. Manzini, P.G. Fogli, **A. Alessandri**, L. Patara, E. Scoccimarro, S. Masina, and A. Navarra, 2011: Global and regional ocean carbon uptake and climate change: Sensitivity to an aggressive mitigation scenario. *Clim. Dyn.*, **37** (9-10), 1929-1947, <https://doi.org/10.1007/s00382-011-1079-0>
- Wang, G., Dolman, A. J., and **Alessandri A.**, 2011: A summer climate regime over Europe modulated by the North Atlantic Oscillation, *Hydrol. Earth Syst. Sci.*, **15**, 57-64, <https://doi.org/10.5194/hess-15-57-2011>

- **Alessandri A.**, A. Borrelli, S. Masina, A.F. Carril, P. Di Pietro, A.F. Carril, A. Cherchi, S. Gualdi and A. Navarra, 2010: The INGV-CMCC Seasonal Prediction System: Improved Ocean Initial Conditions, *Mon. Wea. Rev.*, **138** (7), 2930-2952 <https://doi.org/10.1175/2010MWR3178.1>
- Cherchi A., **A. Alessandri**, S. Masina, and A. Navarra, 2011: Effects of increased CO2 levels on monsoon circulations. *Clim. Dyn.*, **37**, 83-101, <https://doi.org/10.1007/s00382-010-0801-7>
- Materia S, Dirmeyer PA, Guo Z, **Alessandri A**, Navarra A, 2010. The sensitivity of simulated river discharge to land surface representation and meteorological forcings. *J. Hydrometeorol.*, **11** (2), 334-351.
- Weisheimer, A., Doblas-Reyes, F. J., Palmer, T. N., **Alessandri A.**, Arribas, A., Déqué, M., Keenlyside, N., MacVean, M., Navarra, A., Rogel, P., 2009: ENSEMBLES: A new multi-model ensemble for seasonal-to-annual predictions--Skill and progress beyond DEMETER in forecasting tropical Pacific SSTs. *Geophys. Res. Lett.*, **36**, No. 21, L21711. doi: <http://dx.doi.org/10.1029/2009GL040896>.
- **Alessandri A.**, e A. Navarra, 2008: On the coupling between vegetation and rainfall inter-annual anomalies: possible contributions to seasonal rainfall predictability over land areas, *Geophys. Res. Lett.*, **35**, L02718, <https://doi.org/10.1029/2007GL032415>
- **Alessandri A.**, S. Gualdi, J. Polcher, e A. Navarra, 2007: Effects of Land Surface and Vegetation on the Boreal Summer Surface Climate of a GCM. *J. Climate*, **20** (2), 255-278.
- Palmer T. N. , **A. Alessandri**, U. Andersen, P. Cantelaube, M. Davey, P. Délecluse, M. Déqué, E. Diez, F. J. Doblas-Reyes, H. Feddersen, R. Graham, S. Gualdi, J.-F. Guérémy, R. Hagedorn, M. Hoshen, N. Keenlyside, m. Latif, A. Lazar, E. Maisonnavé, V. Marletto, A. P. Morse, B. Orfila, P. Rogel, J.-M. Terres, M. C. Thomson, 2004: Development of a European Multi-Model Ensemble System for Seasonal to Inter-Annual Prediction (DEMETER). *Bull. Amer. Meteor. Soc.*, **85**, 853-872. <https://doi.org/10.1175/BAMS-85-6-853>
- Gualdi S., **A. Alessandri**, and A. Navarra, 2004: Impact of atmospheric horizontal resolution on ENSO forecasts. *Tellus A*, **57**(3), 357-374.

## Peer-Reviewed Publications in Review or in Preparation

- Urdiales-Flores, D., Zittis, G., Hadjinicolaou, P., Cherchi, A., **Alessandri, A.**, Peleg, N., and Lelieveld, J., 2024: A global analysis of historical and future changes in Mediterranean climate-type regions. In review in *Int. J. Climatol.*
- **Alessandri A.**, and co-authors, 2024: Enhancement of seasonal climate prediction in ECMWF SEAS5 by representing realistic vegetation-cover variability. In Preparation.
- **Alessandri, A.**, and co-authors, 2024: Grand multi-model seasonal forecasts: independence and maximization of performance, In Preparation.
- **Alessandri A.**, and co-authors, 2024: Improving the physical parameterizations of the land-surface in EC-Earth for CMIP6 simulations. In Preparation.
- van Oorschot, F., van der Ent, R. J., Viering, T., **Alessandri, A.**, and Hrachowitz, M., 2024: Global patterns of root zone storage capacity. In Preparation.
- Catalano F., **A. Alessandri** and co-authors, 2024: Land surface-atmosphere feedbacks in boreal summer CMIP6-LS3MIP projections. In Preparation.
- Di Carlo E., **Alessandri A.**, van Oorschot F., Catalano F., Cherchi A., Corti S., Balsamo G., Boussetta S., and Stockdale T., 2024: Effects of the realistic vegetation cover representation on the large-scale circulation and predictions at decadal time scale. In Preparation.
- Cherchi A, **Alessandri A**, Tourigny E, Acosta-Navarro AC, Ortega P, Davini P, Catalano F, van Noije T, Annamalai H (2024) Effects of anthropogenic aerosols reduction on the Asian summer monsoon prediction: the case of summer 2020. In Preparation.

## Other Publications

- van Oorschot, F., van der Ent, R. J., Hrachowitz, M., and Alessandri, A., 2021: Climate controlled root zone parameters show potential to improve water flux simulations by land surface models, *Earth Syst. Dynam. Discuss.*, <https://doi.org/10.5194/esd-2021-3>
- Döscher, R., Acosta, M., Alessandri, A., Anthoni, P., Arneth, A., Arsouze, T., Bergmann, T., and co-authors, 2021: The EC-Earth3 Earth System Model for the Climate Model Intercomparison Project 6, *Geosci. Model Dev. Discuss.*, <https://doi.org/10.5194/gmd-2020-446>
- van den Hurk, B., Kim, H., Krinner, G., Seneviratne, S. I., Derksen, C., Oki, T., Douville, H., Colin, J., Ducharme, A., Cheruy, F., Viovy, N., Puma, M., Wada, Y., Li, W., Jia, B., Alessandri, A., Lawrence, D., Weedon, G. P., Ellis, R., Hagemann, S., Mao, J., Flanner, M. G., Zampieri, M., Law, R., and Sheffield, J. 2016: The Land Surface, Snow and Soil moisture Model Intercomparison Program (LS3MIP): aims, set-up and expected outcome, *Geosci. Model Dev. Discuss.*, <https://doi.org/10.5194/gmd-2016-72>
- Borrelli, A., S. Materia, A. Bellucci, **A. Alessandri**, and S. Gualdi, 2012: Seasonal Prediction System at CMCC. CMCC Research Paper No. 147 (RP0147), SSRN: <http://ssrn.com/abstract=2298657> or <http://dx.doi.org/10.2139/ssrn.2298657>
- Wang, G., A. J. Dolman, and **A. Alessandri**, 2010: European summer climate modulated by NAO-related precipitation, *Hydrol. Earth Syst. Sci. Discuss.*, 7, 5079-5097, <https://doi.org/10.5194/hessd-7-5079-2010>, eISSN: 1812-2116
- Masina, S., P. Di Pietro, A. Storto, S. Dobricic, **A. Alessandri**, and A. Cherchi, 2010: Reanalyses in the global ocean at CMCC-INGV: examples and applications, *Mercator Ocean Quarterly Newsletter* 36, 28-38.
- Fogli, P. G., E. Manzini, M. Vichi, L. P. **A. Alessandri**, S. Gualdi, E. Scoccimarro, S. Masina, and A. Navarra (2009), INGV-CMCC Carbon: A Carbon Cycle Earth System Model, CMCC Technical Report, RP0061, SSRN: <http://ssrn.com/abstract=1517282> or <http://dx.doi.org/10.2139/ssrn.1517282>
- Palmer T. N. , **A. Alessandri**, U. Andersen, P. Cantelaube, M. Davey, P. Décluse, M. Déqué, E. Diez, F. J. Doblas-Reyes, H. Feddersen, R. Graham, S. Gualdi, J.-F. Guérémy, R. Hagedorn, M. Hoshen, N. Keenlyside, M. Latif, A. Lazar, E. Maisonnave, V. Marletto, A. P. Morse, B. Orfila, P. Rogel, J.-M. Terres, M. C. Thomson, 2004: Development of a European Multi-Model Ensemble System for Seasonal to Inter-Annual Prediction (DEMETER). ECMWF ECMWF Technical Memorandum No 434, 2004.

## INTERNATIONAL AWARDS

“Marie Curie Award” in 2012 by European Commission Research Executive Agency for the project Performance and usefulness of CLimate predictions: Beyond current liMITationS (CLIMITS)

“Norbert Gerbier-Mumm International Award” for 2006 conferred by WMO for the scientific paper “Development of a European Multimodel Ensemble System for Seasonal to Interannual Prediction (DEMETER)”

## TEACHING

Invited Lecturer in the “Climate Hydrology” class by Dim Coumou at Vrije University Amsterdam (a.y. 2017/2018, a.y. 2018/2019 and a.y. 2019/2020):

Class titles “Earth System Science, the Gaia hypothesis and Daisyworld” and practicals “Daysiworld model equations - hands-on model solution and practicing – lessons learned”.

PhD Class "Earth System Dynamics" PhD Programme in Science and Management of Climate Change, University of Venezia Cà Foscari (a.y. 2014/2015 and 2015/2016)

PhD Class "Biogeochemistry" PhD Programme in Science and Management of Climate Change, University of Venezia Cà Foscari (a.y. 2007/2008, a.y. 2008/2009, a.y. 2009/2010 and a.y. 2010/2011)

## EDITORIAL ACTIVITY

Since March 2010 to December 2022, Editor for the EGU Peer Reviewed Journal “Earth System Dynamics”.

## INTERNATIONAL PROJECTS

Horizon Europe Collaborative-Project OptimESM (Optimal High Resolution Earth System Models for Exploring Future Climate Change) [2022-2027; prepared proposal contribution (2021-2022) and Principal Investigator for ISAC-CNR; start date 1st January 2023, funding gained 439125 EUR]

Implementation of the Spoke 4 – Earth and Climate of the National Research Centre for High Performance Computing, Big Data and Quantum Computing (ICSC) funded by the Next Generation EU (Mission 4 - Centres of Excellence); Responsible of CNR contribution to the Spoke 4 – Earth and Climate of ICSC. [2022-2025; prepared proposal contribution and Principal Investigator for CNR-ISAC; start date 1st September 2022, funding gained 752717 EUR]

Horizon 2020 Collaborative-Project CONFESS (**C**onsistent representation of temporal variations of boundary forcings in reanalyses and seasonal forecasts) [2020-2023; prepared proposal contribution (2019) and Principal Investigator for ISAC-CNR; start date 1st November 2020, funding gained 220400 EUR].

Contribution to proposal LAMACLIMA (Land Management for CLimate Mitigation and Adaptation) with the Vrije University Amsterdam in the frame of JPI AXIS (Assessment of Cross(X) - sectorial climate Impacts and pathways for Sustainable transformation. [start date 1st October 2019]

Grantee of an Intra-European Individual Fellowship (IF-EF) in the framework of the H2020 Marie Skłodowska-Curie Actions (call H2020-MSCA-IF-2015) for the project PROCEED (PROcess-based sEamless development of useful Earth system predictions over land) [Start date 1st January 2017; Funding gained 177598 EUR, 2017-2019].

Leader of Work Package (WP2 - Optimization of climate prediction performance) for proposal in H2020 SC5-01-2016b project: SECLI-FIRM (The Added Value of Seasonal Climate Forecasts for Integrated Risk Management Decisions) [Start 02/2018; Funding gained 373846 EUR, 2018-2021]

ECMWF special project SPITALEs (Go Beyond Current Limitations of Climate Simulation and Projection over Land) [2019-2021; submitted proposal and Principal Investigator (HPC resources granted, start date 1st January 2019)].

ECMWF special project SPNLALes (Decadal climate predictions: exploit vegetation dynamics and improve fire risk assessment) [2018; submitted proposal (2017) and Principal Investigator (HPC resources granted, start date 1st January 2018)].

ECMWF special project SPITALEs (Go Beyond Current Limitations of Climate Simulation and Projection over Land) [2016-2018; submitted proposal (2015) and Principal Investigator (HPC resources granted, start date 1st January 2016)].

Horizon 2020 Collaborative-Project CRESCENDO (Coordinated Research in Earth Systems and Climate: Experiment, kNowledge, Dissemination and Outreach) [2015-2020; prepared proposal contribution (2013) and Principal Investigator for ENEA; start date 1st November 2015, funding gained 259400 EUR].

EU-FP7 Collaborative-Project SPECS (Seasonal-to-decadal climate Prediction for the improvement of European Climate Services) [2012-2016; prepared proposal contribution (2011) and Principal Investigator for ENEA; start date 1st November 2012, funding gained 401063 EUR].

ECMWF special project SPITALEs (Go Beyond Current Limitations of Climate Predictions over Land) [2013-2015; submitted proposal (2012) and Principal Investigator (HPC resources granted, start date 1st January 2013)].

EU-FP7 PEOPLE Marie Curie project (International Outgoing Fellowship) CLIMITS (Performance and usefulness of CLimate predictions: Beyond current liMITationS) [2012-2014; submitted project proposal (2011) as Grantee for international collaboration with the International Pacific Research Center (University of Hawaii); start date 1st September 2012, funding gained 178760 EUR].

## VISITING POSITIONS

European Centre for Medium Range Weather Forecasts (ECMWF), Reading (UK): February-March 2017, January 2018, July 2018, November 2018, May 2019

International Pacific Research Centre (IPRC)-School of Ocean and Earth Science and Technology (SOEST) at University of Hawaii, Honolulu, HI (USA): September 2012-December

2013, July-August 2014, August-September 2016, June 2018, and July 2022.  
Pusan National University, Busan, South Korea, June 2013.  
University of Maryland, College Park, Maryland (USA), May-June 2012.  
APEC Climate Center, Busan, South Korea, June 2010 and June-July 2011.  
University of Maryland, College Park, Maryland (USA), from January to May 2005.  
Laboratoire de Météorologie Dynamique (LMD), Paris, France, July 2001.

## Organization International Conferences

Asia Oceania Geosciences Society 21th Annual Meeting, 2024, 23-28 June 2024. Co-convenor of the session: AS33 Earth System Predictability, Prediction and Projection.  
Convener: J-Y Lee Co-conveners: A. Alessandri, Y. Chikamoto, and N. Keenlyside.  
<https://meetmatt-svr.net/Public/Sessions?cfId=6#>

European Geosciences Union General Assembly 2024. Town Hall meeting on crosscutting activities in land surface modeling: bridging the gap in modeling coupled climate and hydrological processes and the ecosystems modulation.  
Convener: Andrea Alessandri Co-Conveners: Ruud van der Ent, Shraddha Gupta, Simone Gelsinari, Roland Séférian. <https://meetingorganizer.copernicus.org/EGU24/session/50989>

European Geosciences Union General Assembly 2024. Convener of the session CL4.10: Challenges in climate prediction: multiple time-scales and the Earth system dimensions (co-organized by BG9/NP5/OS1)  
Convener: Andrea Alessandri Co-Conveners: Yoshimitsu Chikamoto, Tatiana Ilyina, June-Yi Lee, Xiaosong Yang. <https://meetingorganizer.copernicus.org/EGU24/session/49410>

European Geosciences Union General Assembly 2023. Convener of the session CL5.3: Challenges in climate prediction: multiple time-scales and the Earth system dimensions (co-organized by BG9.11/CR7.9/NP5.8/OS4.16)  
Convener: Andrea Alessandri Co-Conveners: Yoshimitsu Chikamoto, Tatiana Ilyina, June-Yi Lee, Xiaosong Yang, Bikem Ekberzade, and Nomikos Skyllas  
<https://meetingorganizer.copernicus.org/EGU23/session/45556>

Asia Oceania Geosciences Society 19th Annual Meeting, 2022, Virtual 1-5 August. Convener of the session: AS23 Earth System Predictability, Prediction and Projection.  
Conveners: J-Y Lee, A. Alessandri, Y. Chikamoto, N. Keenlyside, and Jing-Jia Luo  
[https://www.asiaoceania.org/aogs2022/public.asp?page=sessions\\_and\\_conveners.asp](https://www.asiaoceania.org/aogs2022/public.asp?page=sessions_and_conveners.asp)

European Geosciences Union General Assembly 2022. Convener of the session CL3.1.9: Challenges in climate prediction: multiple time-scales and the Earth system dimensions (co-organized by BG9/CR7/NH10/NP5/OS1)  
Convener: Andrea Alessandri Co-Conveners: Yoshimitsu Chikamoto, Tatiana Ilyina, June-Yi Lee, and Xiaosong Yang. <https://meetingorganizer.copernicus.org/EGU22/session/42592>

European Geosciences Union General Assembly 2022. Convener of the session CL3.1.4: Climate change in Mediterranean-type climate zones (co-organized by AS1/BG1/NH10)  
Convener: Annalisa Cherchi Co-Conveners: Bikem Ekberzade, Richard Seager, Annarita Mariotti, and Andrea Alessandri. <https://meetingorganizer.copernicus.org/EGU22/session/42612>

Asia Oceania Geosciences Society 18th Annual Meeting, 2021, 1-6 August, Singapore. Convener of the session: AS48 Earth System Predictability, Prediction and Projection.  
Conveners: J-Y Lee, A. Alessandri, Y. Chikamoto, N. Keenlyside, and Jing-Jia Luo  
[http://www.meetmatt.net/aogs2021/public.asp?page=sessions\\_and\\_conveners.asp](http://www.meetmatt.net/aogs2021/public.asp?page=sessions_and_conveners.asp)

European Geosciences Union General Assembly 2021, vEGU21: Gather Online (#vEGU21). Convener of the session CL3.1.9: Challenges in climate prediction: multiple time-scales and the Earth system dimensions (co-organized by BG2/CR7/HS13/NH1/NP5)  
Convener: Andrea Alessandri Co-Conveners: Yoshimitsu Chikamoto, Marlis Hofer, June-Yi Lee, and Xiaosong Yang. <https://meetingorganizer.copernicus.org/EGU21/session/40785>

European Geosciences Union General Assembly 2020, Austria. Convener of the session CL3.1: Challenges in climate prediction: multiple time-scales and the Earth system dimensions (co-organized by NP5/OS4)

Convener: Andrea Alessandri Co-Conveners: Louis-Philippe Caron, Marlis Hofer, June-Yi Lee, and Xiaosong Yang.

<https://meetingorganizer.copernicus.org/EGU2020/session/36753>

American Geophysical Union Fall Meeting 2019, San Francisco, 9-13 December, USA. Convener of the session (A014): Challenges in Climate Prediction: Seasonal-to-Decadal Climate Predictability and the Earth System Dimension.

Conveners: Yoshimitsu Chikamoto, Andrea Alessandri, Xiaosong Yang

Link: <https://agu.confex.com/agu/fm19/prelim.cgi/Session/81836>

European Geosciences Union General Assembly 2019, Austria. Convener of the session CL3.12.2: Challenges in climate prediction: multiple time-scales and the Earth system dimensions (co-organized)

Convener: Andrea Alessandri Co-Conveners: Louis-Philippe Caron, Yoshimitsu Chikamoto, June-Yi Lee, and Stéphane Vannitsem.

<https://meetingorganizer.copernicus.org/EGU2019/session/31725>

Asia Oceania Geosciences Society 15th Annual Meeting, 2018, Honolulu 3-8 June, Hawaii, USA. Convener of the session: Earth System Predictability, Prediction and Application.

Conveners: J-Y Lee, A. Alessandri and Y. Chikamoto

<https://www.meetmatt-svr3.net/aogs/aogs2018/mars2/confSessionView.asp?slD=152>

European Geosciences Union General Assembly 2018, Austria. Convener of the session CL3.03: Earth System Prediction and Application (co-organized)

Convener: Andrea Alessandri Co-Conveners: Yoshimitsu Chikamoto, Noel Keenlyside, June-Yi Lee.

<http://meetingorganizer.copernicus.org/EGU2018/session/27962>

European Geosciences Union General Assembly 2018, Austria. Convener of the session CL4.14: Land-climate interactions from models and observations: Implications from past to future climate.

Conveners: Ryan Teuling, Wim Thiery, Sonia Seneviratne, Andrea Alessandri, Gianpaolo Balsamo, Diego G. Miralles.

<http://meetingorganizer.copernicus.org/EGU2018/session/26428>

American Geophysical Union Fall Meeting 2017, New Orleans 11-15 December, USA. Convener of the session: Monsoons of the Americas, Teleconnections, and the Subseasonal to Decadal Earth System Prediction Capability.

Conveners: Salvatore Pascale, Jessie C. Carman, Andrea Alessandri

Link: <https://agu.confex.com/agu/fm17/meetingapp.cgi/Session/33169>

European Geosciences Union General Assembly 2017, Austria. Convener of the session CL4.11: Land-climate interactions from models and observations: Implications from past to future climate

Conveners: Wim Thiery, Ryan Teuling, Sonia Seneviratne, Philippe Ciais, Andrea Alessandri, Gianpaolo Balsamo, Diego G. Miralles.

Link: <http://meetingorganizer.copernicus.org/EGU2017/session/22774>

European Geosciences Union General Assembly 2016, Austria. Convener of the session CL4.11: Land-climate interactions from models and observations: Implications from past to future climate

Conveners: Ryan Teuling, Sonia Seneviratne, Andrea Alessandri, Philippe Ciais, Gianpaolo Balsamo, Antje Weisheimer, Wim Thiery

Link: <http://meetingorganizer.copernicus.org/EGU2016/session/20067>

European Geosciences Union General Assembly 2015, Austria. Convener of the session CL4.6: Land-climate interactions from models and observations: Implications from past to future climate (co-sponsored by iLEAPS)

Conveners: Ryan Teuling, Andrea Alessandri, Bart van den Hurk, Sonia Seneviratne, Philippe Ciais, Gianpaolo Balsamo, Edouard Davin, Antje Weisheimer

Link: <http://meetingorganizer.copernicus.org/EGU2015/session/17052>

European Geosciences Union General Assembly 2014, Austria. Convener of the session CL5.10: Land-climate interactions from models and observations: Implications from past to

future climate (co-sponsored by iLEAPS)

Conveners: Ryan Teuling, Andrea Alessandri, Bart van den Hurk, Sonia Seneviratne, Philippe Ciais, Gianpaolo Balsamo, Edouard Davin, Antje Weisheimer

Link: <http://meetingorganizer.copernicus.org/EGU2014/session/14111>

European Geosciences Union General Assembly 2013, Austria. Convener of the session CL4.9: Land-climate interactions from models and observations: Implications from past to future climate (co-sponsored by iLEAPS)

Conveners: Ryan Teuling, Andrea Alessandri Co-Conveners: Eduard Davin, Sonia Seneviratne, Bart van den Hurk, Philippe Ciais, Gianpaolo Balsamo, Antje Weisheimer

Link: <http://meetingorganizer.copernicus.org/EGU2013/session/12292>

## **Presentations/Conferences/ Workshops/Seminars**

1. 17 April 2024, Vienna, Austria. Participation at the EGU General Assembly 2024: The role of realistic vegetation variability in climate predictability and prediction Author: A. Alessandri et al.
2. 20 March 2024, EC-Earth Meeting, KNMI, De Bilt, Netherlands: On the diverging soil-moisture response of land surface models when prescribing vegetation variability from observations. Authors: A. Alessandri et al.
3. 29 January 2024, Baltimore, MD, USA. Participation at the 104<sup>th</sup> AMS Annual Meeting - 37<sup>th</sup> Conference on Climate Variability and Change: Effects of the Realistic Representation of Vegetation Variability on Climate Predictions at Seasonal and Decadal Time Scales. Authors: A. Alessandri et al.
4. 25 April 2023, Vienna, Austria. Participation at the EGU General Assembly 2023: On the optimization of grand multi-model probabilistic performance and the independence of the contributing seasonal prediction systems. Author: A. Alessandri et al.
5. 28 March 2023, ECMWF Reading, UK, Invited Talk at the WCRP hybrid symposium on Frontiers in Subseasonal to Decadal Prediction: The role of vegetation in climate predictability and prediction. Author: Andrea Alessandri
6. <https://www.wcrp-climate.org/decadal-prediction-link/symposium-frontiers-sdp>
7. 28 March 2023, ECMWF Reading, UK, Invited Talk at the Working Group on Subseasonal to Interdecadal Prediction 24<sup>th</sup> session: The GLACE-VEG proposal. Author: Andrea Alessandri
8. 5 August 2022, Singapore@virtual, Participation at the AOGS 19<sup>th</sup> Annual Meeting: On the Optimization of Grand Multi-model Probabilistic Performance and the Independence of the Contributing Seasonal Prediction Systems. Authors: A. Alessandri et al.
9. 27 May 2022, Vienna, Austria. Participation at the EGU General Assembly 2022: Proposal for an international effort aimed at quantifying the impact of a realistic representation of vegetation/land cover on seasonal climate forecasts (GLACE-VEG) Author: A. Alessandri et al.
10. 20 January 2022, invited talk at the “Workshop CAMEO – Climate And Meteorology, modeling and Earth Observations” hosted by the Italian Space Agency (ASI): “Exploit the unprecedented observations to constrain land surface processes in climate models.” Author: Andrea Alessandri
11. 31 April 2021, Participation at the EGU General Assembly 2021, vEGU21: Gather Online (#vEGU21): Varying Signatures of Surface Albedo Feedback on the Northern Hemisphere Land Warming. Authors: A. Alessandri et al.
12. 5 May 2020, Vienna, Austria. Participation at the EGU General Assembly 2020 (Online event): Grand Multi-Model Seasonal Forecasts in the SECLI-FIRM project. Authors: A. Alessandri et al.
13. 4 June 2019, invited talk at the “International Workshop on Climate Prediction: Past Present and Future” hosted by APCC and CWB, Taipei, Taiwan: “Grand European and Asian-Pacific Multi-Model Seasonal Forecasts: Maximization of Skill and of Potential Economical Value to End-Users” Author: Andrea Alessandri
14. 22 May 2019, EC-Earth Meeting, ECMWF, Reading, UK: Progresses in “PROcess based sEamless development of useful (multi-scale) Earth system predictions over lanD” PROCEED project. By Andrea Alessandri.
15. 10 May 2019, Meeting and presentation at ECMWF: Progresses in PROCEED activities at ECMWF, ECMWF, Reading, UK.

16. 12 April 2019, Vienna, Austria. Participation at the EGU General Assembly 2019: The Added Value of Seasonal Climate Forecasting for Integrated Risk Assessment (SECLI-FIRM) EU H2020 Project.
17. 9 April 2019, Vienna, Austria. Participation at the EGU General Assembly 2018: Proposal for an international project aimed at quantifying the impact of land Earth system processes and feedbacks on seasonal climate forecasts (GLACE-ESM).
18. 22 November 2018, Invited seminar at the Colloquium in Water Resources Research organized by University of Delft: Frontier Research in Earth System Prediction. Delft University of Technology, Delft, Netherlands.
19. 17-21 September 2018, Participation at the WCRP International conference on seasonal to decadal prediction: Multi-scale enhancement of climate prediction over land by increasing the model sensitivity to vegetation variability, by A. Alessandri, (B1-15) Tuesday 18 Sept. Foothills Lab, NCAR, Boulder, USA.
20. 17-21 September 2018, Participation at the WCRP International conference on seasonal to decadal prediction: Grand European and Asian-Pacific Multi-model Seasonal Forecasts: Maximization of Skill and of Potential Economical Value to End-users, by A. Alessandri, (P-B3-01) Tuesday 18 Sept. Foothills Lab, NCAR, Boulder, USA.
21. 17-21 September 2018, Participation at the WCRP International conference on seasonal to decadal prediction: Proposal for an international project aimed at quantifying the impact of land Earth system processes and feedbacks on seasonal climate forecasts (GLACE-ESM), by A. Alessandri, (P-B3-01) Tuesday 19 Sept. Foothills Lab, NCAR, Boulder, USA.
22. 19 July 2018, Meeting and presentation at ECMWF: PROCEED activities at ECMWF: progresses and planning, ECMWF, Reading, UK.
23. 4 June 2018, Honolulu, US. Participation at the AOGS 15th Annual Meeting: Grand European and Asian-Pacific Multi-model Seasonal Forecasts: Maximization of Skill and of Potential Economical Value to End-users.
24. 10 May 2018, Barcelona, Spain: Severo Ochoa Invited Seminar on "Frontier Research in Earth System Prediction" by Andrea Alessandri <https://www.bsc.es/research-and-development/research-seminars/sors-frontier-research-earth-system-prediction>
25. 12 April 2018, Vienna, Austria. Participation at the EGU General Assembly 2018: Exploit observational constraints to improve understanding and modeling of vegetation-climate interactions and feedbacks.
26. 11 April 2018, Vienna, Austria. Participation at the EGU General Assembly 2018: Proposal for an international project aimed at quantifying the impact of land Earth system processes and feedbacks on seasonal climate forecasts (GLACE-ESM).
27. 12 December 2017, New Orleans, USA. Participation at the AGU Fall meeting 2017: "Multi-scale enhancement of climate prediction over land by improving the model sensitivity to vegetation variability".
28. Authors: Andrea Alessandri
29. 14 December 2017, New Orleans, USA. Participation at the AGU Fall meeting 2017: "Grand European and Asian-Pacific Multi-Model Seasonal Forecasts: Maximization of Skill and of Potential Economical Value to End-Users"
30. Author: Andrea Alessandri
31. 15 June 2017, Seminar at the KNMI Colloquia/Workshop, De Bilt, Netherlands: Multi-scale enhancement of climate prediction over land by increasing the model sensitivity to vegetation variability in EC-Earth.
32. Authors: Andrea Alessandri
33. 11 June 2017, Seminar at the Barcelona Supercomputing Centre, Barcelona, Spain: Multi-scale enhancement of climate prediction over land by increasing the model sensitivity to vegetation variability in EC-Earth.
34. Authors: Andrea Alessandri
35. 31 May 2017, Seminar at the EC-Earth Meeting, FMI in Helsinki: Towards "PROCEss based sEamless development of useful (multi-scale) Earth system predictions over lanD" PROCEED project.
36. Authors: Andrea Alessandri
37. 23-28 April 2017, Wien (European Geosciences Union), Austria. Participation at the EGU General Assembly 2017.: "Grand European and Asian-Pacific multi-model seasonal forecasts: maximization of skill and of potential economical value to end-users".
38. Authors: A. Alessandri, M. De Felice, F. Catalano, J-Y Lee, B. Wang (IPRC), D-Y Lee,



- J-H. Yoo.
39. 03 March 2017, Seminar at the NCAS-Climate Science Meetings, Reading University: Multi-scale enhancement of climate prediction over land by increasing the model sensitivity to vegetation variability in EC-Earth.
  40. Authors: Andrea Alessandri
  41. 5-6 October 2016, Exeter (Met Office), UK. Participation at the International Conference on Climate Science and Climate Services:
  42. Invited Talk “Grand European and Asian-Pacific Multi-Model Seasonal Forecasts: Maximization of Skill and of Potential Economical Value to End-Users”
  43. Author: Andrea Alessandri
  44. 17 April-22 April 2016, Wien (European Geosciences Union), Austria. Participation at the EGU General Assembly: “Multi-scale enhancement of climate prediction over land by increasing the model sensitivity to vegetation variability in EC-Earth” at the Session CL3.01 (Climate Predictions - from monthly, seasonal to decadal time scales)
  45. Authors: Andrea Alessandri, Franco Catalano, Matteo De Felice. Bart Van Den Hurk, Francisco Doblas Reyes, Souhail Boussetta, Gianpaolo Balsamo, and Paul Miller.
  46. 11-14 January 2016, New Orleans, Louisiana (USA). Participation at the American Meteorological Society's 96th Annual Meeting - 28th Conference on Climate Variability and Change - with following presentation: “Grand European and Asian-Pacific multi-model seasonal forecasts: maximization of skill and of potential economical value to end-users”.
  47. Authors: A. Alessandri, M. De Felice, F. Catalano, J-Y Lee, B. Wang (IPRC), D-Y Lee, J-H. Yoo.
  48. 11-14 January 2016, New Orleans, Louisiana (USA). Participation at the American Meteorological Society's 96th Annual Meeting - AMS's Special Symposium on Seamless Weather and Climate Prediction—Expectations and Limits of Multi-scale Predictability - with following presentation: “Seamless enhancement of climate prediction over land by increasing the model sensitivity to vegetation variability”.
  49. Authors: A. Alessandri, F. Catalano, M. De Felice. B. Van Den Hurk, F. Doblas Reyes, S. Boussetta, G. Balsamo, and P. Miller.
  50. 20-23 October 2015, Dubrovnik, Croatia. Participation at the “Workshop on CMIP5 Model Analysis and Scientific Plans for CMIP6”: “Robust assessment of the expansion and retreat of Mediterranean climate in the 21st century”
  51. Authors: A. Alessandri, M. De Felice, N. Zeng, A. Mariotti, Y. Pan, A. Cherchi, J-Y. Lee, B. Wang, K-J. Ha, P. Ruti and V. Artale
  52. 15-17 September 2015, SMHI, Norrkoping, Sweden. Participation at the “SPECS 4th General Assembly”: “Multi-scale enhancement of climate prediction over land by increasing the model sensitivity to vegetation variability in EC-Earth”
  53. Authors: Andrea Alessandri, Franco Catalano, Matteo De Felice. Bart Van Den Hurk, Francisco Doblas Reyes, Souhail Boussetta, Gianpaolo Balsamo, and Paul Miller.
  54. 5-6 May 2015, ECMWF, Reading, UK. Participation at the “EC-Earth Meeting”: “Seamless enhancement of climate prediction over land by improving sensitivity to vegetation variability in EC-Earth”
  55. Authors: Andrea Alessandri, Franco Catalano, Matteo De Felice. Francisco Doblas Reyes, Bart Van Den Hurk, Paul Miller, Souhail Boussetta, and Gianpaolo Balsamo
  56. 6-10 October 2014, Prague (European Meteorological Society), Czech Republic. Participation at the 14th EMS Annual Meeting & 10th European Conference on Applied Climatology (ECAC):
  57. Invited Talk “Improving sensitivity to vegetation variability in the EC-Earth Earth System Model”
  58. Authors: Andrea Alessandri, Franco Catalano and Matteo De Felice.
  59. 2-3 July 2014, East West Center, Honolulu, USA-HI. Participation at the Takio Murakami Memorial Symposium on Tropical Meteorology and Monsoon: “Prediction of Indian summer monsoon onset using dynamical sub-seasonal forecasts”
  60. Authors: Andrea Alessandri
  61. 29 April-2 May 2014, Wien (European Geosciences Union), Austria. Participation at the EGU General Assembly: “Improving sensitivity to vegetation variability in the EC-Earth Earth System Model”
  62. Authors: Andrea Alessandri, Franco Catalano and Matteo De Felice.
  63. 29 April-2 May 2014, Wien (European Geosciences Union), Austria. Participation at the EGU General Assembly: “Maximization of seasonal forecasts performance combining Grand Multi-Model Ensembles”

64. Authors: Andrea Alessandri, Matteo De Felice, Franco Catalano, June-Yi Lee, Bin Wang, Doo Young Lee and Jin-Ho Yoo
65. 4 February 2014, ECMWF, Reading, UK: Participation at the EC-Earth meeting: "Improving sensitivity to vegetation variability in the EC-Earth Earth System Model"
66. Authors: Andrea Alessandri, Franco Catalano and Matteo De Felice.
67. 1-3 July 2013, Novotel Ambassador Busan, S. Korea. Participation at the 12th East Asian Climate (EAC) Workshop: "Prediction of Indian summer monsoon onset using dynamical seasonal forecasts"
68. Authors: Andrea Alessandri, A. Borrelli, A. Cherchi, A. Navarra, J-Y Lee, B. Wang
69. 26 June 2013, APEC Climate Center, 26 June 2013, Busan, S. Korea: "Seasonal-to-decadal climate Prediction for the improvement of European Climate Services: framework for European-Asian Pacific collaboration"
70. Authors: Andrea Alessandri, Matteo De Felice, and Francisco Doblas Reyes.
71. 25 June 2013, Pusan National University, Busan, S. Korea: "Expansion and loss of Mediterranean climate in the 21st century and the relationship with global Monsoon changes"
72. Authors: Andrea Alessandri, Matteo De Felice, Ning Zeng, Annalisa Cherchi, Annarita Mariotti, Yutong Pan, J-Y Lee, B. Wang, Kyung-Ja Ha, Paolo Ruti, and Vincenzo Artale
73. 7-12 April 2013, Wien (European Geosciences Union), Austria. Participation at the EGU General Assembly: "Northward expansion and rainfall seasonality amplification of the Mediterranean climate zones projected in 21st century scenario"
74. Authors: Andrea Alessandri, Annalisa Cherchi, Matteo De Felice, Annarita Mariotti, Yutong Pan, and Ning Zeng
75. 3-7 December 2012, S. Francisco, California (USA). Participation at the AGU Fall Meeting: Atmospheric energy and water balance perspective to projection of global-scale precipitation increase: may mitigation policies unexpectedly amplify precipitation?
76. Authors: A. Alessandri, M. De Felice, N. Zeng, A. Mariotti, Y. Pan and A. Cherchi
77. 5 March 2012, Rome, Italy (National Research Council, Headquarters). Participation to the "ECRA Pilot Workshop: Changes in the hydrological cycle" with following contribution: "Strength of the hydrological cycle in future scenarios: tropospheric energy and water balance perspective". Author: Andrea Alessandri.
78. 22 July 2011, Busan, South Korea (APEC Climate Center): "Evaluation of Probabilistic Quality and Value of the ENSEMBLES Multimodel Seasonal Forecasts: Comparison with DEMETER". Author: Andrea Alessandri
79. 26 July 2011, Busan, South Korea (APEC Climate Center): "Progresses in seasonal-to-intraseasonal forecasting using a state of the Art dynamical Seasonal Prediction System". Author: Andrea Alessandri. 28 June-7 July 2011, Melbourne, Australia (Melbourne Convention & Exhibition Centre). Participation to the IUGG 2011 General Assembly: "Evaluation of probabilistic quality and value of the ENSEMBLES multimodel seasonal forecasts: comparison with DEMETER". Authors: A. Alessandri, A. Borrelli, A. Navarra, A. Arribas, M. Déqué, P. Rogel, and A. Weisheimer.
80. 28 June-7 July 2011, Melbourne, Australia (Melbourne Convention & Exhibition Centre). Participation to the IUGG 2011 General Assembly: "Tropical cyclone count forecasting using a dynamical Seasonal Prediction System: sensitivity to improved ocean initialization". Authors: A. Alessandri, A. Borrelli, S. Gualdi, and S. Masina.
81. 28 June-7 July 2011, Melbourne, Australia (Melbourne Convention & Exhibition Centre). Participation to the IUGG 2011 General Assembly: "Predictability of Indian summer monsoon onset and withdrawal using dynamical seasonal forecasts". Authors: A. Alessandri, A. Borrelli, A. Cherchi and A. Navarra.
82. 17-19 January 2011, Reading, UK (ECMWF). Contribution to the "EC-Earth Meeting" with following contribution: "Evaluation of probabilistic quality and value of ENSEMBLES multi-model seasonal forecasts & perspectives for land surface predictability" Authors: A. Alessandri, A. Borrelli, A. Navarra, A. Arribas, M. Deque, P. Rogel, A. Weisheimer, P. Ruti, and V. Artale.
83. 2 November 2010, ESA-ESRIN, Frascati(RM), Italy. Contribution to the Workshop "Uncovering the global state of the biosphere from in-situ and Earth observation data: toward a land-ecosystem-atmosphere Index" with following contribution: "Couplings and directional statistical relationship between two climatic fields" Authors: A. Alessandri.
84. 1-6 August 2010, Keystone, Colorado, USA. Contribution to the "29th Conference on

- Agricultural and Forest Meteorology”: “Seasonal fire danger forecast for the Euro-Mediterranean area” Authors: C. Sirca, V. Bacciu, M. Salis, B. Arca, P. Duce, A. Alessandri, A. Borrelli, A. Navarra, and D. Spano.
85. 20-24 June 2010, Busan, South Korea (APEC Climate Center). Participation to the APEC Climate Symposium 2010 with following contribution: “Seasonal Climate Prediction Activity at CMCC: Developments and latest results” Authors: Andrea Alessandri et al.
  86. 18-19 June 2010, Busan, South Korea (APEC Climate Center): Invited Presentation for the Joint Session of the CLIVAR Asian-Australian Monsoon Panel and of the Year of Tropical Convection (YOTC) MJO Task Force. (MJOTF): “Hindcast Experiment for Intraseasonal Prediction at CMCC”. Authors: Andrea Alessandri et al.
  87. 15-18 June 2010, Busan, South Korea (APEC Climate Center). Participation to the “Workshop on Modelling Monsoon Intraseasonal Variability” with following contribution: “Predictability of Indian summer monsoon onset and withdrawal using dynamical seasonal forecasts” Authors: A. Alessandri, A. Borrelli, A. Cherchi, and A Navarra.
  88. 9-11 June 2010, Marina di Ugento (Iberotel apulia). Participation at the IV° National “Workshop CMCC”: “Coupling between the land surface and the changing climate” Authors: Andrea Alessandri et al.
  89. 9-11 June 2010, Marina di Ugento (Iberotel apulia). Participation at the IV° National “Workshop CMCC”: “Seasonal climate prediction activities at CMCC: ENSEMBLES EU project framework” Authors: Andrea Alessandri et al.
  90. 2-7 May 2010, Wien (European Geosciences Union), Austria. Participation at the EGU General Assembly: “Predictability of Indian summer monsoon onset and withdrawal using dynamical seasonal forecasts” Authors: A. Alessandri, A. Borrelli, A. Cherchi, and A Navarra.
  91. 18 December 2009, Bologna – SISEF - University of Bologna, Italy. Participation at the Workshop on Forest Modeling: “Modeling Land Surface-Climate interactions at CMCC” by Andrea Alessandri
  92. 10-12 June 2009, Marina di Ugento (Iberotel apulia), Italy. Participation at the III° National “Workshop CMCC”: “Vegetation-Land Surface modelling at CMCC-INGV” by Andrea Alessandri.
  93. 10-12 June 2009, Marina di Ugento (Iberotel apulia), Italy. Participation at the III° National “Workshop CMCC”: “Seasonal Climate Prediction Activity at CMCC” by Andrea Alessandri et al.
  94. 19-24 April 2009, Wien (European Geosciences Union), Austria. Participation at the EGU General Assembly 2009: “Tropical cyclone count predictability on seasonal time-scale using dynamical climate forecasts” by A. Alessandri, S. Gualdi, E. Scoccimarro, S. Masina, P. Di Pietro, and A Navarra.
- 19-23 October 2008, Santander (Magdalena Palace), Spain. Participation at the Fifth EU-FP7 ENSEMBLES General Assembly with following contribution: “CMCC-INGV Seasonal Prediction System: development and results” by Andrea Alessandri et al.
  - 11-12 June 2008, Gallipoli (Grand Hotel Costa Brada), Italy. Participation at the II° National Workshop “IL CMCC: ATTIVITA', RISULTATI, PROSPETTIVE”: “Il modello del Ciclo del Carbonio del CMCC: stato attuale e possibili sviluppi futuri” by Andrea Alessandri et al.
  - 14-19 April 2008, Wien (European Geosciences Union), Austria. Participation at the EGU General Assembly: “On the coupling between vegetation and rainfall inter-annual anomalies: possible contributions to seasonal rainfall predictability over land areas” by Andrea Alessandri and Antonio Navarra.
  - 21 April 2008, Bologna (University of Bologna – Alma Mater Studiorum), Italy. Participation at the Earth System Colloquia cycle of seminars, Dipartimento di Fisica-Università di Bologna: “Land Surface-Climate Interactions: Basics, Modelling and Recent Findings” by Andrea Alessandri
  - 14-19 April 2008, Wien (European Geosciences Union), Austria. Participation at the EGU General Assembly: “Seasonal predictions at INGV-CMCC: Sensitivity to the improvement in ocean initial conditions” by Andrea Alessandri et al.
  - 11 February 2008, Milano (Fondazione Enrico Mattei), Italy. Participation at the CMCC Workshop on Scenario and emissions: “Ciclo del carbonio nel CMCC ESM: modellistica di superficie e biosfera continentale” by Andrea Alessandri et al.
  - 12-13 September 2007, Roma (Palazzo FAO), Italy, Conferenza Nazionale sui Cambiamenti Climatici: “Previsioni climatiche a breve termine” by Andrea Alessandri and Antonio Navarra.
  - 19-22 June 2007, Ischia. Convegno Nazionale di Fisica della Terra Fluida e problematiche affini: “L’attività di previsione climatica su scala stagionale presso l’INGV-CMCC” by Andrea

Alessandri et al.

- 4-7 June 2007, Barcelona (World Trade Centre), Spain. Participation at the WCRP “Workshop on Seasonal Predictions”: “Seasonal predictions at INGV-CMCC: sensitivity to improvements in ocean initial conditions” by Andrea Alessandri et al.
- 15-20 April 2007, Wien (European Geosciences Union), Austria: Participation at the EGU General Assembly: “Effects of Land-Surface-Vegetation on the Boreal Summer surface Climate of a GCM” by Andrea Alessandri et al.
- 15-20 April 2007, Wien (European Geosciences Union), Austria: Participation at the EGU General Assembly: “The INGV-CMCC Earth System Model: Configuration and technical results” by Fogli, P.G., Manzini, E., Vichi, M., Alessandri, A., Gualdi, S., Masina, S., Navarra, A., Patara, L. and Scoccimarro, E.
- 26-27 September 2006, Paris (Ecole Normale Superieure): Participation at the “Workshop on Climate-Biosphere interactions” (directed by M. Ghil and A. Provenzale)

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV

Date, 15/07/2024

Signature

A handwritten signature in black ink, appearing to read 'Andrea Alessandri', written in a cursive style.