cmcc ANNUALmeeting 2013

AGENDA

Monday, 3 June		
08.30 – 08.45	**Welcome Message** (A. Navarra)	
08.45 – 10.45	**Modeling Climate Change: scenarios and forecast** (A. Bellucci, S. Dobricic) **Key Questions: What are the grand challenges faced by the climate science community?** **How are we going to tackle them?** **How can we improve climate forecasts on seasonal to decal timescales?** **How to communicate science for forecasting?** **What kind of forecasts do the users need?** The contribution of CMCC to CMIP5: future challenges for global climate modelling and the roadmap to CMIP6 (A. Bellucci) Short and medium term oceanographic forecasting at coastal, regional and global scales (G. Coppini/S. Dobricic) 09.45 – 10.00 Poster presentation 10.00– 10.45 Discussion	*Roman Room*
10.45 – 11.00	Coffee Break	
11.00 – 13.00	**Modeling the Earth System with a special focus on performance** (S. Masina, G. Aloisio) **Key Questions: Which are the lessons learnt so far on Earth System modelling and which are the future challenges?.** **Which are the most suitable strategies to efficiently exploit the next generation architectures?** Scientific computing – will the lessons learned apply to the future? (Paul Messina ANL/ALCF, USA) The Earth System Models at CMCC: a story of science and computer challenges (M. Vichi) Benchmarking and Performance Evaluation of Earth System Models at CMCC: a never-ending story (I. Epicoco) 12.00 – 12.15 Poster presentation 12.15 – 13.00 Discussion	*Roman Room*
13.00 – 14.00	Lunch	
14.00 – 16.00	**Localizing Climate Change** and uncertainty quantification (P. Schiano, D. Spano) **Key Questions: Which is our actual understanding about climate change downscaling approaches/methodologies and associated uncertainties?** **How can we use the recent improvements related to climate change localization (e.g. impacts, mitigation and adaptation**	*Roman Room*

	strategies)? **What further steps are needed to embed downscaling in the ecosystem and productive processes?** The WRF model: downscaling procedure and application. (M. Falk, University of California, Davis and CMCC) Assessment of COSMO-CLM performances and future climate projections over the Italian domain (E. Bucchignani) Evaluation of uncertainty in local climate change scenario in several Italian sub-areas, making use of Statistical Downscaling techniques, (C. Cacciamani) 15.00 – 15.15 Poster presentation 15.15 – 16.00 Discussion	
16.00 – 16.15	Coffee Break	
16.00 – 17.00	**POSTER SESSION**	*Greek Room*
Tuesday, 4 June		
08.30 – 08.45	**Welcome Message** (A. Navarra)	
08.45 – 10.45	**Climate Impacts** (S. Gualdi, R. Valentini) **Key Questions:.Is there any added value in having integrated models? How can we quantify it?** **What should be done in order to optimize the integration between models and their consideration of feedbacks?** **What problems do we meet in coupling our impact models and what solutions are we designing and implementing?** **How can this integration take advantage from a shared and harmonized tool for communication and dissemination of results?** **What is still missing to turn these models into ready-to-use services?** Assessment of Climate Change Impacts on Land Suitability and Crop Production (V. Mereu) Strengthening climate and impact research through improved and harmonized representation of coupled land use and socio-economic dynamics (M. Santini) Lancelot: in search of the Holy Grail of Climate Change and its Impacts (A. Zabeo) 09.30 – 09.50 Poster presentation 09.50 – 10.45 Discussion	*Roman Room*
10.45 – 11.00	Coffee Break	
11.00 – 13.00	**Mitigation and Adaptation Policies** (F. Bosello, S. Castellari) **Key Questions: What is the role of uncertainty in shaping mitigation and adaptation strategies?** **How does it affect the implementation of specific adaptation measures?**	*Roman Room*

	How can CMCC contribute to the study of adaptation and be more vocal in the definition of adaptation policies and in the wider policy debate? The dynamic feedback of catastrophic climate risk on mitigation and adaptation policies (F. Bosello) The involvement of CMCC in fhe elaboration of the National Adaptation Strategy and next steps (Castellari) State of the art on wildfire mitigation strategies (V. Bacciu) 12.00 – 12.15 Poster presentation 12.15 – 13.00 Discussion	
13.00 – 14.00	Lunch	
14.00 – 16.00	**Extremes, Vulnerability and Risks** (M. Tavoni, A. Lanza, S. Torresan, M. Santini) **Key Questions: What are the most effective risk management strategies for dealing with climate change?** **What integrated approach can be used to compound all the uncertainties (climate, impacts, economy) of climate change?** **To what extent the management of extremes should guide climate policy?** Probabilistic assessment of optimal policies under climate uncertainty (Laurent Drouet) Managing the risk of extreme events (Jaro Mysiak) Multi-risk: a challenging perspective for the assessment of climate change impacts (Silvia Torresan) 15.00 – 15.15 Poster presentation 15.15 – 16.00 Discussion	*Roman Room*
16.00 – 16.15	Coffee Break	
16.00 – 17.00	**POSTER SESSION & AWARD**	*Greek Room*
Wednesday, 5 June		
09.30 – 11.30	**Project Management** (L. Panzera)	*Roman Room*

END OF THE CMCC ANNUAL MEETING 2013

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Meeting of the CMCC Scientific Advisory Panel

Wednesday, 5 June		
09.00 – 09.30	Welcome Message (A. Navarra & G.R. Asrar)	*Greek Room*
09.30 – 10.30	Presentation of CMCC Division activities (SERC Division Director)	
10.30 – 11.00	Coffee Break	
11.00 – 12.00	Presentation of CMCC Division activities (CIP Division Director)	
12.00 – 13.00	Presentation of CMCC Division activities (ISC Division Director)	
13.00 – 14.30	Lunch	
14.30 – 15.30	Presentation of CMCC Division activities (IAFENT Division Director)	
15.30 – 16.30	Presentation of CMCC Division activities (ANS Division Director)	
16.30 – 16.45	Coffee Break	
16.45 – 17.45	Presentation of CMCC Division activities (SCO Division Director)	
17.45 – 18.15	Discussion and end of the session	

Thursday, 6 June		
08.30 – 10.30	SAP internal discussion & report writing	Etruscan Room
10.30 – 11.00	Coffee Break	
11.00 – 13.00	SAP internal discussion & report writing	
13.00 – 14.30	Lunch	
14.30 – 16.00	SAP internal discussion & report writing	
16.00 – 16.30	Coffee and closure of the meeting	

POSTER LIST

Poster n.	Title	Authors	Session
01	Observed long-term trend and low-frequency variability of spring discharge timing in the main Alpine rivers	Matteo Zampieri, Enrico Scoccimarro, Silvio Gualdi and Antonio Navarra	**Modeling Climate Change: scenarios and forecast** (A. Bellucci, S. Dobricic)
02	Heavy precipitation events in a warmer climate: results from CMIP5 models	E. Scoccimarro, S. Gualdi, Alessio Bellucci, Matteo Zampieri and A. Navarra	
03	What climate should we expect for the next summer?	Andrea Borrelli, Alessio Bellucci, Stefano Materia, Silvio Gualdi, and Antonio Navarra	
04	Sea Surface Temperature Assimilation for Mediterranean Forecasting System	Jenny Pistoia, Srdjan Dobricic, Nadia Pinardi	
05	The operational research in support to decisional instruments	Giovanni Coppini, Nadia Pinardi, Paolo Oddo, Esam Awad, Antonio Bonaduce, Emanuele Calcagnile, Stefania Ciliberti, Ivan Federico, Maria Barbara Galati, Rita Lecci, Svitlana Liubartseva, Marco Mancini, Giananadrea Mannarini, Elena Shchekinova, Giorgia Verri	
06	SeaConditions: to know the present and future sea conditions for safer navigation	Giovanni Coppini, Palmalisa Marra, Nadia Pinardi, Marco Mancini, Rita Lecci, Antonio Bonaduce, Maria Barbara Galati, Mario Scalas, Luca Tedesco, Eleonora Pizzolante, Roberto Sorgente, Antonio Olita, Leopoldo Fazioli, Davide Rollo,Giovanni Aloisio, Sandro Fiore, Cosimo Palazzo, Alessandro D'Anca, Marina Tonani, M. Drudi	
07	The new CMCC atmosphere-ocean regional climate model: COSMOMED	A. Sanna, M. Zampieri and S. Gualdi	
08	Performance evaluation of a non-hydrostatic regional climate model over the Mediterranean/Black Sea area and climate projections for the XXI century	Paola Mercogliano, Edoardo Bucchignani, Myriam Montesarchio, Alessandra Lucia Zollo, M.P. Manzi	

09	Impact of physical processes on carbonate chemistry in the Mediterranean Sea using a high-resolution model	Lovato, T., W.J. McKiver, M. Vichi	**Modeling of the Earth System with a special focus on performance** (S. Masina, G. Aloisio)
10	A 3-th order Recursive Filter with Exact Boundary Conditions in a 3D-VAR Ocean Data Assimilation System	Farina S. and S. Dobricic	
11	El Niño Southern Oscillation in an Ensemble Ocean Reanalysis and Coupled Climate Models	Yang C.	
12	3D-CMCC LAND, a new flexible tool for land modeling	Collalti A., S. Marconi, A. Candini, M. Santini, R. Valentini	
13	Comparison of Steric Sea Level from an Ensemble of Ocean Reanalyses and Objective Analyses	Storto A., M. Balmaseda, S. Masina and the CLIVAR/GSOP intercomparison Group	
14	On the sensitivity of modeled sea ice	Iovino D.	
15	Performance evaluation and optimization of NEMO at High Resolution on many-core architectures	Epicoco I., Mocavero S., Aloisio G.	
16	Towards (big) data analytics for climate change	Fiore S., D'Anca A., Palazzo C., Williams D., Foster I. Aloisio	
17	Ocean Data Assimilation achievements on HPC systems: experiments on OceanVar in the Mediterranean Sea	Arcucci R., D'Amore L., Carracciuolo L., Murli A.	
18	PELAGOS025 - results and computational issues of the high resolution implementation of the BFM	McKiver W., Vichi M., Lovato T., Storto A., Masina S	
19	BFM Configuration: Protocol for Configuration and Simulation	Gutierrez E., T. Lovato, W. McKiver, M. Vichi	

20	Reanalysis of Global Biogeochemical Fluxes with Assimilation of Physical Data	Visinelli L., S. Masina, M. Vichi, S. Dobricic, P. Di Pietro, A. Storto, E. Gutierrez, T. Lovato, W. McKiver	
21	Comparison of postprocessing techniques for COSMO-CLM precipitation over the Po basin.	A. Zollo, M. Turco, P. Mercogliano	**Localizing Climate Change and uncertainty quantification** (P. Schiano, D. Spano)
22	Weather analyst. A GIS tool for the climate change impacts research.	Francesco Cotroneo, Luigi Cattaneo, V. Rillo, P. Mercogliano	
23	Effects of climate change upon hourly rainfall distribution in a Mediterranean climate	Andrea Guida, Roberto Greco, Guido Rianna, Renata Vezzoli, Paola Mercogliano	
24	Uncertainties in forest C estimations by remote sensing at local level: West Africa case study	G. Vaglio Laurin, R. Valentini	
25	Assessment of Climate Change Impact on Crop Water Requirement using the SIMETAW# model	Noemi Mancosu, Morteza Orang, Sara Sarreshteh, Richard L. Snyder, Donatella Spano	**Climate Impacts** (S. Gualdi, R. Valentini)
26	Downscaling land use change simulations for fire risk analysis at local level	S. Noce, M. Santini	
27	Annual trends of N compounds concentrations in gas, aerosol and rain at a rain forest in Ghana	Ferdinando Fattore, Teresa Bertolini, Stefano Materia, Armel Thongo M'Bou, Agnes de Grancourt, Silvio Gualdi, Riccardo Valentini, Simona Castaldi	
28	First attempts for investigating the coupled effect of land use changes and variation of weather forcing induced by climate change on landslide activity	Rianna G., Santini M., Mercogliano P., Montesarchio M.	
29	Impact of land use changes on peak floods through a probability distribution based method	R. Vezzoli, P. Mercogliano, S. Pecora, M.Santini	
30	Growth trends of African tropical trees under a changing climate	Gatti Cazzolla R., Battipaglia G., Castaldi S., Laserre B., Cardellini G., Valentini R	

31	Regional drought and fire danger projections under climate change in the Euro-Mediterranean region	Costantino Sirca, Antonio Monteiro, Edoardo Bucchignani, Antonella Sanna, Donatella Spano	
32	Towards the development of climate impact services for coastal stakeholders: the case study of the North Adriatic sea (Italy)	Torresan S., Gallina V., Giannini V., Rizzi J., Zabeo A., Gualdi S., Bellucci A.,Giorgi F., Critto A., Marcomini A.	
33	Assessing environmental impacts of climate change on groundwater resources: results from the Life + TRUST project	A. Critto, S. Pasini, S. Torresan, J. Rizzi, A. Zabeo, A. Marcomini	
34	CMCC interacting internationally in delivering climate science targeted information	Eva Banos de Guisasola, Silvio Gualdi	
35	Forest fires in Italy: An econometric analysis of major driving factors	Melania Michetti	
36	Climate change, impacts and adaptation on the tourist and agricultural sectors in the Sardinian Island	Simone Mereu, Antonio Trabucco, Stefano Renoldi, Andre Daccache, Noemi Mancosu, Donatella Spano	**Mitigation and Adaptation Policies** (F. Bosello, S. Castellari)
37	A model for tropical forests subject to localized disturbance	Cazzolla Gatti R., Di Paola A., Valentini R., Paparella F.	
38	The impact of logging on biodiversity and carbon sequestration in African tropical forests	Gatti Cazzolla R., Castaldi S., Lindsell J. A., Coomes D. A, Marchetti M., Maesano M., Di Paola A., Paparella F., Valentini R.	
39	Investments in energy technologies and innovation to reach 2C	Giacomo Marangoni	
40	The effect of Climate Change Mitigation on Sustainability	Fabio Eboli	
41	Re-ICES regionalizing CGE models for the economic assessment of climate change impacts	Gabriele Standardi	

42	Designing adaptation strategies at river basin (district) level - the interplay of planning instruments	Lorenzo Carrera	
43	Projected climate change Impacts on ecoregions and primary productivity within the Kailash Sacred Landscape of China, India, Nepal	Trabucco A, Zomer R, Metzger M, Spano D	**Extremes, Vulnerability and Risks** (M. Tavoni, A. Lanza, S. Torresan, M. Santini)
44	Analyzing spatiotemporal changes in wildfire regime and exposure across a Mediterranean fire-prone area	Michele Salis, Alan A. Ager, Mark A. Finney, Bachisio Arca, Donatella Spano	
45	Improving coastal risk management by evaluating flood risk due to extreme storm surge events and sea level rise scenarios	Andrea Critto (ISC)	
46	Flood risk assessment: a GIS-based methodology to estimate relative risk levels according to the EU flood directive.	Silvia Torresan (ISC)	
47	A long-term climatology of medicanes	Leone Cavicchia (SERC)	
48	Climate simulations of storm surges and wind waves in the Mediterranean Sea	Dario Conte (ANS)	
49	Safety assessment of a future nuclear fluel underground repository at Forsmark (Sweden): impact of an extensive glaciation	Florence Colleoni/Simona Masina (ANS)	