

**EGU General Assembly 2012**  
**Programme Group Programme**  
**EG – Europe in Geosciences**

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## Tuesday, 24 April

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### **CL1.17/EG1 – Reconstructing the climate of the last two millennia (including Hans Oeschger Medal Lecture) (co-organized) – Orals**

Convener: J. Luterbacher | Co-Conveners: D. McCarroll, F. González-Rouco, E. Zorita, L. von Gunten

**Room: 15**

Chairperson: Eduardo Zorita

08:30–08:45 EGU2012-883

**Z. Yuan**

A Robust Reconstruction of Precipitation Variations of China Over Both a Short-term Scale and the Last Two Millennia

08:45–09:00 EGU2012-8892

**B. Wilhelm**, F. Arnaud, C. Giguet-Covex, P. Sabatier, C. Crouzet, and J.J. Delannoy

Two millennia of torrential activity reconstructed from alpine lake sediments: towards regional patterns of extreme precipitation changes

09:00–09:15 EGU2012-5833

**H. Oerter**, S. Kipfstuhl, and F. Wilhelms

Stable isotope records for the past 2000 years from ice cores in central Dronning Maud Land, Antarctica

09:15–09:30 EGU2012-2546

**D. Guillot**, B. Rajaratnam, and J. Emile-Geay

Multiproxy Paleoclimate Reconstruction Using Gaussian Graphical Models

09:30–09:45 EGU2012-7632

**B. Christiansen** and F. C. Ljungqvist

Bias and confidence intervals in climate reconstructions

09:45–10:00 EGU2012-7486

**J.P. Werner**, J. Luterbacher, and J.E. Smerdon

A pseudo proxy evaluation of pattern-based vs. localised climate field reconstructions

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### COFFEE BREAK

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Chairperson: Juerg Luterbacher

10:30–11:30 EGU2012-14454

**M.E. Mann**

The Past as Prologue: Learning from the Climate Changes in Past Centuries (Hans Oeschger Medal Lecture)

11:30–11:45 EGU2012-3771

**E. Zorita**, R. Caballero, and S. Wagner

Global spatial patterns of natural and forced variability in the past millennium

11:45–12:00 EGU2012-448

**J. Zhang** and T. Wu

The impact of external forcings on climate during the past millennium: Results from transient simulation with BCC\_CSM1.1

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### LUNCH BREAK

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Chairperson: Jesus Fidel Gonzalez-Rouco

13:30–13:45 EGU2012-2035

**H. Goosse** and S. Dubinkina

Towards a reanalysis covering the last millennia

13:45–14:00 EGU2012-225

**L. Fernández-Donado**, J. F. González-Rouco, C. C. Raible, D. Barriopedro, J. Luterbacher, J. H.

Jungclaus, D. Swingedouw, J. Servonnat, S. Tett, P. Brohan, E. Zorita, S. Wagner, C. M. Ammann, S. J. Phipps, D. Klocke, P. Yiou, and S. Lorenz

Forcings, temperature response and climate sensitivity in pre-PMIP3 last millennium simulations and reconstructions

14:00–14:15 EGU2012-7537

A. Hind, A. Moberg, R. Sundberg, H. Grudd, G. Brattström, R. Caballero, and **E. Zorita**

A GCM-reality intercomparison for the last millennium

- 14:15–14:30 EGU2012-12032  
**E. García-Bustamante**, J. Luterbacher, E. Xoplaki, J. P. Werner, J. Jungclaus, E. Zorita, J.F. González-Rouco, L. Fernández-Donado, G. Hegerl, Q. Ge, Z. Hao, and S. Wagner  
 Climate variability in China during the last millennium based on reconstructions and simulations
- 14:30–14:45 EGU2012-4794  
**S Wagner**, E Zorita, J Luterbacher, and J Werner  
 Added value of a regional climate model simulation of historical times over Europe
- 14:45–15:00 EGU2012-4725  
**F. Lehner**, C. C. Raible, N. Merz, and T. F. Stocker  
 Testing the robustness of proxy-based North Atlantic Oscillation reconstructions

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**CL1.17/EG1 – Reconstructing the climate of the last two millennia (including Hans Oeschger Medal Lecture)****(co-organized) – Posters**

Convener: J. Luterbacher | Co-Conveners: D. McCarroll, F. González-Rouco, E. Zorita, L. von Gunten

**Hall Z | Display Time 08:00–19:30**

Author in Attendance: 17:30–19:00

Chairperson: Eduardo Zorita, Jesus Fidel Gonzalez-Rouco, Juerg Luterbacher

- Z43 EGU2012-1965  
**P.D. Breitenmoser**, D. Frank, and S. Brönnimann  
 Forward modeling of tree-ring data: a case study with a global network
- Z44 EGU2012-7605  
**J. A. Wassenburg**, A. Immenhauser, D. K. Richter, J. Fietzke, D. Scholz, K. P. Jochum, D. F. C. Riechelmann, L. Schneider, and J. Esper  
 Medieval climate anomaly and little ice age as recorded in speleothem and tree-ring data from the Middle Atlas in Morocco
- Z45 EGU2012-2570  
**A. Laskar**, M. Yadava, and R. Ramesh  
 A 4 kyr stalagmite oxygen isotopic record of the past Indian Summer Monsoon in the Andaman Islands
- Z46 EGU2012-9189  
**Y. Watanabe**, M. Kita, T. Fukunaga, S. Sakai, T. Tagami, K. Takemura, and S. Yoden  
 Geochemical data recorded in stalagmites from West and East Java, Indonesia
- Z47 EGU2012-4217  
**Dr Macdonald**, Dr Chiverrell, Ms Hind, Ms Todd, and Dr Charman  
 A multi-proxy reconstruction of millennial scale drought history for Northern England
- Z48 EGU2012-2844  
**H. Wu**, T. Felis, M. Kölling, C. Giry, D. Scholz, and S. Scheffers  
 Sub-seasonally resolved coral records of Caribbean sea surface conditions during the demise of the Maya civilization (~AD 800–1050)
- Z49 EGU2012-7123  
**M.P. Lüthi**  
 A 1600 year history of Alpine glacier equilibrium line altitude inferred from glacier length records, and the relation to summer temperature and radiation
- Z50 EGU2012-10969  
**F. Ott**, B. Brademann, M. S?owi?ski, P. Dulski, B. Plesssen, M. Blaszkiewicz, and A. Brauer  
 Seasonal sub-layer variations of a varved record from the Czechowskie Lake, Poland
- Z51 EGU2012-7756  
**D. Schillereff**, R. Chiverrell, N. Macdonald, and J. Hooke  
 Lakes as recorders of extreme flows: a millennial-scale palaeoflood record from the English Lake District
- Z52 EGU2012-13364  
**I. Gil**, L. Keigwin, F. Abrantes, and D. Hebbeln  
 A late Holocene diatom record from the Laurentian Fan reveals the imprints of solar forcing over oceanic circulation changes
- Z53 EGU2012-8098  
**G. Rueda**, A. Rosell-Melé, and R. Gyllencreutz  
 Reconstructing climatic conditions in the Skagerrak during the last 2000 years using an organic biomarker approach
- Z54 EGU2012-13466  
**L. Pérez-Cruz**, J.M. Bautista, and J. Urrutia-Fucugauchi  
 High resolution multi-decadal climate record of the last 1200 years in the southern Gulf of California
- Z55 EGU2012-8320  
**J.J. Gómez-Navarro**, J.P. Montávez, P. Jiménez-Guerrero, J.F. González-Rouco, E. García-Bustamante, J. Luterbacher, and E. Zorita  
 Assessing the Physical Consistence of Several Gridded Reconstructions Over Europe Through a High-Resolution Climate Paleosimulation

Z56	EGU2012-10764 <b>M. Gagen</b> , E Zorita, D McCarroll and the The Millennium project consortium. Team Episodes of large unforced variability in European climate over the last millennium.
Z57	EGU2012-4788 <b>J. Franke</b> , D. Frank, C. Raible, J. Esper, and S. Brönnimann Spectral biases in climate proxies and reconstructions
Z58	EGU2012-6392 <b>P. Yiou</b> , J. Servonnat, M. Yoshimori, D. Swingedouw, M. Khodri, and A. Abe-Ouchi Stability of weather regimes during the last millennium from climate simulations
Z59	EGU2012-11359 <b>J.A. García-Valero</b> , J.J. Gómez-Navarro, J.P. Montávez, P. Jiménez-Guerrero, R. Lorente-Plazas, R. Baró, and E. Zorita
Z60	EGU2012-13245 <b>S. Hanhijärvi</b> and A. Korhola MuReMo: Reconstructing from proxy records of multiple resolutions assuming monotonic transfer functions

**EG4 – Research on Flood Resilience and Europe – Orals**

Convener: I. Tchiguirinskaia | Co-Conveners: D. Schertzer, S. Garvin

**Room: D**

Chairperson: S. Garvin

08:30–08:45	EGU2012-14316 <b>B. Avril</b> and et al. Responses to Environmental & Societal Challenges for our Unstable Earth (RESCUE) foresight initiative - towards a European response to grand challenges in sustainability research and learning
08:45–09:00	EGU2012-13902 <b>J. Tourbier</b> A Methodology to Define Flood Resilience
09:00–09:15	EGU2012-14322 <b>J. Mysiak</b> The importance of being resilient
09:15–09:30	EGU2012-10984 <b>C. Kuhlicke</b> and A. Steinführer A capacity assessment towards more resilient societies
09:30–09:45	EGU2012-12052 <b>I. White</b> , P O'Hare, and N Lawson Responsibilities for European risk management: the roles of the state, the insurance industry and the individual in flood risk management
09:45–10:00	EGU2012-14353 <b>C. Zevenbergen</b> Building Flood Resilience: From Theory to Practice

**COFFEE BREAK**

Chairperson: D. Schertzer

10:30–10:45	EGU2012-13924 <b>S. Garvin</b> and D. Kelly Flood resilience technology, systems and tools
10:45–11:00	EGU2012-14347 <b>C. Maksimovic</b> Next generation paradigm for urban pluvial flood modelling, prediction, management and vulnerability reduction - Interaction between RainGain and Blue Green Dream projects
11:00–11:15	EGU2012-14282 <b>Ph. Gourbesville</b> Urban flooding and Resilience: concepts and needs
11:15–11:30	EGU2012-14349 <b>S. Schneiderbauer</b> Vulnerability and Resilience to Floods -Examples from Research in South Tyrol
11:30–11:45	EGU2012-7349 <b>K. Beven</b> , D. Leedal, J. Neal, P. Bates, N. Hunter, R. Lamb, and C. Keef Flood resilience and uncertainty in flood risk assessment

11:45–12:00 EGU2012-14320

**S. Fuchs**

Communicating the unexpected - the fable of the lay foible and some other issues resulting from research in Alpine watersheds

**EG4 – Research on Flood Resilience and Europe – Posters**

Convener: I. Tchiguirinskaia | Co-Conveners: D. Schertzer, S. Garvin

**Hall XL | Display Time 08:00–19:30**

Author in Attendance: 15:30–17:00

Chairperson: I. Tchiguirinskaia

XL1 EGU2012-14352

**J. Richard**, A. Giangola-Murzyn, A. Gires, I. Tchiguirinskaia, and D. Schertzer

Advanced GIS data assimilation interface for evaluation of flood resilient systems

XL2 EGU2012-12758

**A. Giangola-Murzyn**, A. Gires, J. Richard, I. Tchiguirinskaia, and D. Schertzer

Multi-Hydro: a multi module physically based model to evaluate effect of implementation of the flood resilience measure.

XL3 EGU2012-13221

**A. Gires**, A. Giangola-Murzyn, I. Tchiguirinskaia, D. Schertzer, and S. Lovejoy

Required spatial resolution of hydrological models to evaluate urban flood resilience measures

XL4 EGU2012-14324

**S. Ochoa Rodriguez**, J.A.E. ten Veldhuis, C. Maksimovic, D. Schertzer, and P. Willems

Scientific challenges for enhancing urban pluvial flood resilience

XL5 EGU2012-14351

**C.T. Hoang**, I. Tchiguirinskaia, D. Schertzer, and S. Lovejoy

Assessing the quality of rainfall data when aiming to achieve flood resilience

XL6 EGU2012-13606

**D. Schertzer**, I. Tchiguirinskaia, and S. Lovejoy

Multiscale Metrics to Assess Flood Resilience: Feedbacks from SMARTeST

XL7 EGU2012-12526

J.-L. Salagnac, **J Diez**, and J. Tourbier

From flood management systems to flood resilient systems: integration of flood resilient technologies

XL8 EGU2012-10774

**J.J. Diez Gonzalez**, M.D. Esteban, J.V. Monnot, J.S. López Gutiérrez, V. Negro Valdecantos, E.J. Calderón, P. Márquez Paniagua, and J.M. Silvestre

Coastal Floods: Urban Planning as a Resilience System

XL9 EGU2012-11004

**J.J. Diez Gonzalez**, J.V. Monnot, P. Marquez Paniagua, P. Pámpanas, S. Paz Abuín, P. Prendes, O. Videra, and U.P.M. SMARTeST team

Flood Resilient Technological Products

XL10 EGU2012-6421

**N. Manojlovic**, V. Gabalda, D. Antanaskovic, I. Gershovich, and E. Paschet†

Flood Resilient Systems and their Application for Flood Resilient Planning

XL11 EGU2012-10968

R. Schinke, S. Golz, and **T. Naumann**

Consideration of flood resilience measures within damage assessment

## Friday, 27 April

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### OS2.2/EG3/CL2.12 – Advances in understanding of the multi-disciplinary dynamics of the Southern European Seas (Mediterranean and Black Sea) (co-organized) – Orals

Convener: S. Somot | Co-Conveners: M. Gregoire, E. Özsoy, A. Pascual

**Room: 5**

Chairperson: S. Somot, E. Ozsoy

13:30–13:45 EGU2012-787

**M. Bensi**, V. Cardin, and M. Ga?i?

Thermohaline variability and mesoscale activities observed at the E2M3A deep site in the south Adriatic Sea

13:45–14:00 EGU2012-12099

**A. Gogou\***, A. Sanchez-Vidal\*, S. Stavrakakis, X. Durrieu de Madron, A.M. Calafat, M. Stabholz, S.

Psarra, M. Canals, S. Heussner, I. Stavrakaki, and E. Papathanassiou

Carbon Flux to the Deep in three open sites of the Southern European Seas

14:00–14:15 EGU2012-11948

**I. Bouloubassi**, A. Gogou, S. Stavrakakis, A. Sanchez-Vidal, and M. Grégoire

Downward biogenic fluxes in the SW Black Sea: dynamics of their compositional and temporal patterns

14:15–14:30 EGU2012-178

**S. Karimova**

Satellite observations of eddies in the Baltic, Black and Caspian seas

14:30–14:45 EGU2012-2755

**A. Pascual**, J. Bouffard, S. Ruiz, B. Buongiorno Nardelli, and R. Escudier

Recent advances on mesoscale variability in the Western Mediterranean Sea: complementarity between satellite altimetry and other sensors

14:45–15:00 EGU2012-4692

**A. Peliz**

Alboran jets, gyres and eddies in a 20-year high resolution simulation

Chairperson: M. Gregoire, A. Pascual

15:30–15:45 EGU2012-6229

**J. Soto-Navarro**, S. Somot, F. Sevault, J. Beuvier, F. Criado-Aldeanueva, J. García-Lafuente, and A. Sánchez-Román

Study of the exchange flow through the Strait of Gibraltar with the NEMOMED8 Ocean Circulation Model: model validation, interannual variability and trends.

15:45–16:00 EGU2012-12311

**C. Dubois**, F. Sevault, and S. Somot

Impact of the heat and salt content in the Atlantic on the Western Mediterranean Deep Water masses formation

16:00–16:15 EGU2012-11230

**A. Elizalde** and U. Mikolajewicz

Resolving explicitly the Black Sea in the Mediterranean Sea simulations using a fully coupled atmosphere-ocean model.

16:15–16:30 EGU2012-11614

**A. Theocharis**, G. Krokos, and G. Korres

An internal mechanism driving decadal oscillations of the thermohaline circulation and properties in the Eastern Mediterranean

16:30–16:45 EGU2012-4437

**G. Mattia**, M. Vichi, M. Zavatarelli, and P. Oddo

The wind-driven response of the Mediterranean sea biogeochemistry to the Eastern Mediterranean Transient. A numerical model study.

16:45–17:00 EGU2012-11669

**L. Velea**, R. Bojariu, and T. Chronis

Evaluation of air-sea exchange over Black Sea from a regional climate simulation

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### OS2.2/EG3/CL2.12 – Advances in understanding of the multi-disciplinary dynamics of the Southern European Seas (Mediterranean and Black Sea) (co-organized) – Posters

Convener: S. Somot | Co-Conveners: M. Gregoire, E. Özsoy, A. Pascual

**Hall X/Y | Display Time 08:00–17:00**

Author in Attendance: 10:30–12:00

Chairperson: S. Somot

- XY365 EGU2012-901  
**V.V. Fomin**, V.B. Zalesny, N.A. Diansky, and A.V. Gusev  
Black and Azov Sea circulation numerical modelling on the basis of splitting technique
- XY366 EGU2012-2606  
**I. Vilibic**, S. Matijevic, and J. Sepic  
Long-term changes in the middle Adriatic oceanographic properties
- XY367 EGU2012-2809  
**A. Sanchez-Roman**, J. Garcia-Lafuente, R. Sanchez-Leal, J. Delgado, J. Soto-Navarro, and C. Naranjo  
Seasonal and Inter-annual signals in the Mediterranean Outflow observed in Espartel Sill (western Strait of Gibraltar) during the last decade
- XY368 EGU2012-3036  
**P. Censi**, M. Raso, F. Saiano, and P. Zuddas  
HOW Zr/Hf AND Gd ANOMALY SIGNATURES CAN DEPICT SOLID-LIQUID INTERACTIONS IN SEAWATER
- XY369 EGU2012-3655  
**G. Korotaev**, Yu. Ratner, A. Kholod, M. Martynov, M. Ivanchik, S. Denmyshev, V. Dorofeev, V. Knysh, V. Moiseenko, A. Kybryakov, T. Churilova, and V. Suslin  
Variability of the Black Sea from My Ocean Black Sea Monitoring and Forecasting Center Products
- XY370 EGU2012-3972  
**V.S. Arkhipkin**, E.A. Malyarenko, and G.V. Surkova  
Analysis of storm waves on the Caspian Sea
- XY371 EGU2012-4188  
**V. Dorofeyev**, T. Oguz, G. Korotaev, and L. Sukhikh  
Hindcast and Forecast of the Black Sea Ecosystem on the Basis of 3D Interdisciplinary Model
- XY372 EGU2012-4244  
D. Boutov and **A. Peliz**  
Atmospheric forcing and Sea Surface Temperature response in the Gulf of Cadiz-Alboran Sea system in a 20 years simulation
- XY373 EGU2012-4300  
E. Clementi, **M. Zavatarelli**, P. Oddo, G. Volpe, S. Colella, and V. Djurdjevic  
Validation of a 3D coupled physical-biogeochemical model in the Adriatic Sea
- XY374 EGU2012-4423  
**S. Ruiz**, L. Renault, B. Garau, and J. Tintoré  
Underwater glider observations and modeling of an abrupt mixing event in the upper ocean
- XY375 EGU2012-4432  
**A.I. Kubryakov**, G.K. Korotayev, F.-X. Thoorens, O. Liungman, and C. Ambjorn  
New tool for the Black Sea environmental safety: BlackSea Track Web
- XY376 EGU2012-4751  
**G. Surkova**, A. Kislov, and P. Koltermann  
Large-scale atmospheric circulation and extreme wind events during the Black sea storms
- XY377 EGU2012-4877  
**B. Petelin**, V. Malacic, A. Malej, M. Kukar, and I. Kononenko  
Multi-level Association Rules and Directed Graphs for the Lagrangian Analysis of the Mediterranean Ocean Forecasting System (MFS)
- XY378 EGU2012-5633  
**F.N. Gippius** and V.S. Arkhipkin  
Hydrological regime of the Black Sea waters: numerical modeling
- XY379 EGU2012-5643  
**A. K. Stips**, E. Garcia Gorri, and G. Lessin  
Linear trends or regime shifts: statistical analysis of data and biogeochemical model simulations for the last 50 years in the Aegean Sea
- XY380 EGU2012-6016  
**B. L'Hévéder**, L. Li, F. Sevault, and S. Somot  
Interannual variability of deep convection in the Gulf of Lions in a Atmosphere-Ocean Regional Climate Model for the Mediterranean area.
- XY381 EGU2012-6292  
**S. Riha** and A. Peliz  
An Idealized Isopycnal 2-Layer Model of the Alboran Sea
- XY382 EGU2012-7200  
**T. Churilova** and V. Suslin  
Black Sea spectral bio-optical models based on satellite data and their applications for assessment of spatial and temporal variability in waters transparency, chlorophyll a content and primary production
- XY383 EGU2012-7591  
**R. Balbín**, A. Aparicio, J.L. López-Jurado, and M.M Flexas  
Interannual variability of Dissolved Oxygen values around the Balearic Islands

- XY384 EGU2012-8476  
**A. Aparicio**, J.L. López-Jurado, R. Balbín, J. Jansá, and B. Amengual  
IBAMar 2.0: 36 years sampling on the Western Mediterranean Sea
- XY385 EGU2012-8932  
**E. Padorno**, R. Aznar, E. Álvarez-Fanjul, S. Somot, F. Sevault, M. Déqué, M. Herrmann, G. Jordá, M. Marcos, and D. Gomis  
Impact of climate change scenarios in the Mediterranean Sea from a regional ocean model
- XY386 EGU2012-9349  
**M. Adani**, G. Korres, P. Oddo, and N. Pinardi  
Coupling OGCM and Wave model trough the drag coefficient
- XY387 EGU2012-12232  
**C. Naranjo**, J. García-Lafuente, G. Sannino, JC. Sanchez-Garrido, J. Soto-Navarro, E. Bruque, S. Sammartino, A. Sanchez-Roman, and C. Calero  
The WMDW path from its formation place to the Gibraltar gateway.
- XY388 EGU2012-7836  
R. Soczka Mandac and **B. Bogunovi?**  
Spatial and temporal variability of R1 in the Bay of Koper (Gulf of Trieste)
- XY389 EGU2012-4851  
**G. Sannino** and A. Carillo  
Effect of explicit tides in an eddy resolving Mediterranean model with increased resolution at Gibraltar.
- XY390 EGU2012-12855  
A. Capet, J.M Beckers, A. Barth, and **M. Grégoire**  
Interannual variability of Black Sea's hydrodynamics and connection to atmospheric patterns: model study.
- XY391 EGU2012-716  
**N. Sokolikhina**, E. Semenov, and E. Sokolikhina  
Meteorological and Synoptic Aspects of the Novorossiysk Bora Forming and Evolution

