



Universität Hamburg  
DER FORSCHUNG | DER LEHRE | DER BILDUNG



CEN @ EGU 2018

# EGU — ABSTRACTS

**Summary of  
Presentations, Sessions, Orals, PICOs  
and Posters**

**by CEN/ ClisAP Scientists**

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[WWW.CLISAP.DE](http://WWW.CLISAP.DE)

[WWW.CEN.UNI-HAMBURG.DE](http://WWW.CEN.UNI-HAMBURG.DE)

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## Presentations @ EGU 2018

*ClisAP/CEN/UHH Member/Presenter; ClisAP/CEN/UHH Member*

**Monday, 9<sup>th</sup> of April**

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### Sessions

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TS10.2

**Hypervelocity impact cratering: Mechanics and environmental consequences**

Convener: Ulrich Riller | Co-Convener: Michael Poelchau

Orals

/ Mon, 09 Apr, 10:30–12:00 / Room 1.61

Posters

/ Attendance Mon, 09 Apr, 17:30–19:00 / Hall X2

### Orals

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BG1.1, Application of stable isotopes in Biogeosciences (co-organized by the European Association of Geochemistry (EAG) , Orals, 08:30–10:00, Room 2.20

09:00– 09:15 EGU2018-19620 **Nitrate sources in the catchment basin of the Rhône River** by **Alexander Bratek**, Kirstin Daehnke, Tina Sanders, and Jürgen Möbius

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OS2.4, Oceanography at coastal scales. Modelling, coupling, observations and benefits from coastal Research Infrastructures , Orals, 10:30–12:00, Room 1.85

11:15– 11:30 EGU2018-7112 **Synergy between satellite observations and model simulations during extreme events** by **Anne Wiese**, Joanna Staneva, Arno Behrens, Johannes Schulz-Stellenfleth, and Luciana Fenoglio-Marc

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TS10.2, Hypervelocity impact cratering: Mechanics and environmental consequences , Orals, 10:30–12:00, Room 1.61

11:30– EGU2018-4309 **Dynamics of the thermal aureole of the Sudbury impact melt sheet, Canada** by **Paul Göllner** and **Ulrich Riller**  
11:45

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GD8.3/GMPV9.4/TS9.10, The geology of the Azores: a comprehensive approach to understanding a unique geological, geochemical and geodynamic setting (co-organized) , PICO, 15:30–17:00, PICO spot 3

15:30– EGU2018-8375 **The submarine geology of the Azores Plateau – insights from marine reflection seismic and multi-beam imaging** by **Christian Huebscher**  
15:32  
PICO3.1

15:56– EGU2018-9441 **Extensional forces in intraplate magmatism: constraints from Faial Island, Azores** by **René H.W. Romer**, Christoph Beier, Karsten M. Haase, and  
15:58 **Christian Hübscher**  
PICO3.14

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HS1.3, Hydrologic Dynamics, Analytics and Predictability: Physical and Data-based Approaches for Improving Hydrologic Understanding and Prediction , Orals, 15:30–17:00, Room C

15:45– EGU2018-600 **An efficient three-dimensional semi-implicit finite volume scheme for the solution of coupled free-surface and variably saturated sub-surface flow** by  
16:00 **Federica Gugole**, Michael Dumbser, and Guus Stelling

## Posters

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AS1.2, Forecasting the weather , Posters, 17:30–19:00, Hall X5

EGU2018-9642 **Development of a new seamless prediction system for very short range convective-scale forecasting at Deutscher Wetterdienst** by Ulrich Blahak, **Kathrin**

**Wapler**, **Marcus Paulat**, Roland Potthast, Axel Seifert, Liselotte Bach, Elisabeth Bauernschubert, Robert Feger, Kathrin Feige, Michael Hoff, Markus Junk, **Alberto deLozar**, Lisa Neef, Rafael Posada, Martin Rempel, **Markus Schultze**, Christian Welzenbacher, and Manuel Werner

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BG1.1, Application of stable isotopes in Biogeosciences (co-organized by the European Association of Geochemistry (EAG) , Posters, 17:30–19:00, Hall A

EGU2018-6196 **Evaluating the contribution of high temperature fluids to surface waters using Se/SO<sub>4</sub> ratios and the stable isotopes of sulphur and carbon for the Aso caldera, Japan** by **Gibran Romero Mujalli**, **Jens Hartmann**, Takahiro Hosono, **Thorben Amann**, Pacale Louvat, and Michael E. Böttcher

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BG2.3, Plant traits and biogeochemical cycles, including optimality, acclimation and adaptation in land ecosystem models (co-organized) , Posters, 17:30–19:00, Hall A

EGU2018-10298 **European biomass demand can affect forests nutrient budgets in wood exporting regions** by **Wagner de Oliveira Garcia**, **Thorben Amann**, and **Jens Hartmann**

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CL4.17, Sea level rise: past, present and future , Posters, 17:30–19:00, Hall X5

EGU2018-7448 **DFG Priority Program (SPP-1889) Regional Sea Level Change and Society ('SeaLevel')** by **Eleni Tzortzi** and **Detlef Stammer**

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HS4.6/CL3.13, From sub-seasonal forecasting to climate projections: predicting hydrologic extremes and servicing water managers (co-organized) , Posters, 17:30–19:00, Hall A

EGU2018-7262 **Improved Seasonal Predictability of Droughts by Conditioning the Prediction on ENSO** by **Patrick Pieper**, **Felix Bunzel**, **André Düsterhus**, **Frank Sienz**, and **Johanna Baehr**

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NP2.2/AS1.9/CL2.11, Dynamical Extremes in Climate Sciences (co-organized) , Posters, 17:30–19:00, Hall X3

- X3.9 EGU2018-5453 **Wavenumber decomposition of midlatitude meridional energy transports and extremes** by **Valerio Lembo**, Gabriele Messori, and **Valerio Lucarini**
- X3.24 EGU2018-16815 **Chaotic Crisis and Climate Sensitivity: a Transfer Operator Approach** by Alexis Tantet, **Valerio Lucarini**, Henk Dijkstra, and **Frank Lunkeit**
- X3.25 EGU2018-18360 **Return levels of temperature extremes in southern Pakistan** by **Maida Zahid**, **Valerio Lucarini**, **Richard Blender**, and Maria Caterina Bramati

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NP4.1/CL5.29/NH11.20, Time Series Analysis in the Geosciences - Concepts, Methods and Applications (co-organized) , Posters, 17:30–19:00, Hall X3

- X3.36 EGU2018-9607 **Complex networks of climate extremes: Why Event Coincidence Analysis is preferable to Event Synchronization** by **Adrian Odenweller** and Reik Donner

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SSP3.2/GM11.8, Understanding of marine records and sedimentary processes: From continental environments to the deep-sea (including Jean Baptiste Lamarck Medal Lecture) (co-organized) , Posters, 17:30–19:00, Hall X1

- X1.250 EGU2018-3420 **Carbonate drifts as marine archive of eolian input** by **Sebastian Lindhorst**, **Christian Betzler**, and **Marco Wunsch**

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TS6.2/GD6.3/SM2.16, From break-up to spreading: Multi-scale Observations and Models of end-of-rift, Continent-Ocean Transition, and Spreading Initiation (co-organized) , Posters, 17:30–19:00, Hall X2

- X2.151 EGU2018-15027 **Preferential southward Tristan Plume flow during early rifting of the South Atlantic: Causes and consequences** by **Jason Morgan**, Jorge Taramon, Marta Perez-Gussinye, and **Joerg Hasenclever**

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TS10.2, Hypervelocity impact cratering: Mechanics and environmental consequences , Posters, 17:30–19:00, Hall X2

- X2.241 EGU2018-3978 **Target-rock fluidization during peak-ring formation of the Chicxulub crater inferred from Expedition 364 drill core** by **Ulrich Riller**, **Felix Schulte**, Michael Poelchau, Auriol Rae, Richard Grieve, Johanna Lofi, Joanna Morgan, Naoma McCall, and Sean Gulick |

## Tuesday, 10<sup>th</sup> of April

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### Orals

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ERE1.2, Energy and environmental system interactions – Policy and modelling , Orals, 10:30–12:00, Room M1

11:30–  
11:45 EGU2018-7711 **The Role of Solar Geoengineering in a Comparative Integrated Assessment of Temperature Targets: How Much Does 0.5°C Make Difference?** by **Elnaz Roshan** and **Mohammad M. Khabbazan**

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ESSI4.3, Advancing Data-driven Workflows, Analytics and Visualization in Earth System Science , Orals, 13:30–15:00, Room 0.49

14:00–  
14:15 EGU2018-15042 **Web-Based Interactive Visualization Of A High Resolution Global Lithological Map** by **Felicia Brisc**, **Jens Hartmann**, and Nils Moosdorf

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NP6.2, Recent developments in Geophysical Fluid Dynamics: Waves, Turbulence, Transport and Intermittency , Orals, 13:30–15:00, Room M1

13:45–  
14:00 EGU2018-10052 **A study of surface semi-geostrophic turbulence: freely decaying dynamics** by **Gualtiero Badin** and **Francesco Ragone**

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BG1.7/CL4.28, Soil stocks and atmospheric fluxes of carbon and nitrogen in high-latitude ecosystems (co-organized) , Orals, 15:30–17:00, Room 2.31

EGU2018-10583 **Importance of methane production for the greenhouse gas budget of thawing permafrost on climate relevant time scales** by **Christian Knoblauch**, **Christian Beer**, Susanne Liebner, Alexander Schütt, Mikhail N. Grigoriev, and **Eva-Maria Pfeiffer**

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BG3.1/OS3.6, Biogeochemistry of coastal seas and continental shelves (including Vladimir Ivanovich Vernadsky Medal Lecture) (co-organized) , Orals, 15:30–17:00, Room C

EGU2018-7790 **Mutual dependency between benthic fauna and early diagenesis in a shelf sea** by **Wenyan Zhang**, Alexa Wrede, Ute Daewel, **Corinna Schrum**, and Kai Wirtz

## Posters

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AS1.1, Numerical weather prediction, data assimilation and ensemble forecasting , Posters, 17:30–19:00, Hall X5

X5.10 EGU2018-120 **Data Assimilation in a Multi-Scale Model** by **Guannan Hu** and **Christian Franzke**

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AS3.29, Urban air quality , Posters, 17:30–19:00, Hall X5

EGU2018-8112 **Performance and evaluation of local scale wind flow fields for urban air pollution modeling with the coupled prognostic model TAPM driven by ERA5 climate reanalysis data** by **Martin Otto Paul Ramacher**

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CL3.04/NP5.6, Climate Predictions from monthly, seasonal to decadal time scales (co-organized) , Posters, 17:30–19:00, Hall X5

EGU2018-9766 **Decadal hindcasts in MPI-ESM initialized from coupled oceanic EnKF assimilation and atmospheric nudging** by **Sebastian Brune**, **Wolfgang A. Müller**, and **Johanna Baehr**

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ERE1.2, Energy and environmental system interactions – Policy and modelling , Posters, 17:30–19:00, Hall X4

X4.231 EGU2018-1047 **China's biofuel policy in agriculture sector: The impacts on land use change and land management** by **Kaili Wei** and **Uwe A. Schneider**

EGU2018-8615 **The Role of Bioenergy and Carbon Capture and Storage (BECCS) in the Case of Delayed Climate Policy – Insights from Cost-Risk Analysis** by **Jana Mintenig**, **Mohammad M. Khabbazan**, and **Hermann Held**

X4.232

EGU2018-14616 **Regional Weights and Cost-Risk Trade-off of Solar Radiation Management and Mitigation** by **Elnaz Roshan** and **Mohammad M. Khabbazan**

X4.239

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GM3.3/BG2.8/CL4.27/SSS3.4, Chemical weathering, soil formation, and organic carbon mobilization across spatial and temporal scales (co-organized) , Posters, 17:30–19:00, Hall X2

EGU2018-6283 **Terrestrial sediments of the Earth: Development of a Global Unconsolidated Sediments Map database (GUM)** by **Janine Börker**, **Jens Hartmann**, **Thorben Amann**, and **Gibran Romero-Mujalli**

X2.97

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NP2.1/AS1.25/CL2.10/OS1.13, ENSO: Dynamics, Predictability and Modelling (co-organized) ,  
Posters, 17:30–19:00, Hall X4

X4.327 EGU2018-8789 **Does ENSO affect the observing conditions in the Atacama Desert?** by  
**Elina Plesca**, **Martin Burgdorf**, Johannes Lutzmann, and **Stefan A. Buehler**

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OS1.7/CR6.2, Changes in the Arctic Ocean, sea ice and subarctic seas systems: Observations,  
Models and Perspectives (co-organized) , Posters, 17:30–19:00, Hall X4

X4.76 EGU2018-17847 **Geophysical and morphological processes in the Arctic coastal regions  
and marginal ice zone by using remote sensing data** by Stefan Wiehle, **Andrey  
Pleskachevsky**, Anja Frost, and **Mikhail Dobrynin**

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OS5.1/AS2.4/CL2.25, Surface Waves and Wave-Coupled Effects in Lower Atmosphere and  
Upper Ocean (co-organized) , Posters, 17:30–19:00, Hall X4

X4.134 EGU2018-18405 **Coupling of atmosphere and ocean through a dynamic wave interface**  
by **Joanna Staneva** and **Corinna Schrum**

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SSP3.5, Clinoform drivers and stratigraphic products in siliciclastic and carbonate successions ,  
Posters, 17:30–19:00, Hall X1

X1.346 EGU2018-15701 **Paleoenvironmental control on carbonate platform clinoforms  
(Neogene, Maldives)** by **Jesus Reolid**, **Christian Betzler**, and **Thomas Lüdman**

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TS9.2/GD5.7/GMPV8.4/SM1.09, Subduction interface properties and large subduction  
earthquakes: integrating geological and geophysical observations, laboratory results, and  
numerical modeling (co-sponsored by JpGU) (co-organized) , Posters, 17:30–19:00, Hall X2

X2.265 EGU2018-9443 **Variable spatio-temporal clustering of microseismicity in the Eastern  
Hellenic Subduction Zone as possible indicator for fluid migration** by **Gian-Maria  
Bocchini**, Marija Ruscic, **Dirk Becker**, and Thomas Meier

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## Wednesday, 11<sup>th</sup> of April

### Sessions

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AS5.4/SM5.05

**International Monitoring System and On-site Verification for the CTBT, disaster risk reduction and Earth sciences (co-organized) (co-organized)**

Convener: **Martin Kalinowski** | Co-Conveners: Lars Ceranna, Yan Jia, Peter Nielsen, and Andreas Becker

PICO

/ Wed, 11 Apr, 10:30–12:00 / 13:30–15:00 / 15:30–17:00 / PICO spot 5a

### Orals

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AS5.4/SM5.05, International Monitoring System and On-site Verification for the CTBT, disaster risk reduction and Earth sciences (co-organized) (co-organized) , PICO, 10:30–12:00, PICO spot 5a

EGU2018-18015 **IMS radionuclide monitoring after the announced nuclear test of the DPRK on 3 September 2017** by **Pierre Bourguin**, Jolanta Kusmierczyk-10:48–  
10:50 Michulec, **Martin Kalinowski**, Liu Boxue, Abdelhakim Gheddou, Franziska PICO5a.10 Klingberg, Ari-Pekka Leppänen, Michael Schoeppner, Robert Werzi, and Jun Wang

OS5.2/AS1.20, Internal Gravity Waves (co-organized) , Orals, 13:30–15:00, Room N1

14:15– EGU2018-17815 **Numerical evaluation of energy transfers in GM-like wave spectra**  
14:30 by **Carsten Eden** and Dirk Olbers

14:30– EGU2018-14979 **Topographic forcing in the internal gravity wave model IDEMIX** by  
14:45 **Friederike Pollmann**, **Carsten Eden**, Dirk Olbers, and Jonas Nycander

14:45– EGU2018-4511 **Resolving the horizontal direction of internal tide generation** by  
15:00 **Jonas Nycander**, **Friederike Pollmann**, **Carsten Eden**, and Dirk Olbers

BG4.11, Carbon Cascades from Land to Ocean in the Anthropocene: Processes, Budgets, Variability, and Trends , Orals, 13:30–15:00, Room 2.31

14:30– EGU2018-19854 **Shelf sea processes mediating land-ocean carbon fluxes** by  
14:45 **Corinna Schrum**, Ute Daewel, Kai Logemann, Joanna Staneva, **Wenyan Zhang**, and **Changjin Zhao**

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AS5.4/SM5.05, International Monitoring System and On-site Verification for the CTBT, disaster risk reduction and Earth sciences (co-organized) (co-organized) , PICO, 15:30–17:00, PICO spot 5a

15:40– EGU2018-17624 **New early warning indices for monsoon onset and withdrawal in**  
 15:42 **all regions based on cosmogenic radionuclide  $^{7}\text{Be}$**  by **Lucrezia Terzi**, **Martin**  
 PICO5a.2 **Kalinowski**, and Michael Schoeppner |

15:44– EGU2018-9641 **Global radioxenon emission inventory for 2014 by normal**  
 15:46 **operational releases from nuclear power plants and medical isotope production**  
 PICO5a.4 **facilities** by **Martin Kalinowski** and Halit Tatlisu

## Posters

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EOS10, Effective Project and Research Management – What does that mean? , Posters, 15:30–17:00, Hall X1

X1.8 EGU2018-8020 **Educational outreach techniques as a Science Communication strategy for an interdisciplinary research project** by **Jennifer Fandrich**

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GI2.3/NH6.9/PS6.5, Sentinels for Science: Advances in Ocean science and Cryosphere research (co-organized) , Posters, 17:30–19:00, Hall X4

EGU2018-17523 **Improved Coastal Sea Level Along the North Eastern Atlantic Shelf from Sentinel-3A Delay Doppler Altimetry** by **Luciana Fenoglio-Marc**, Bernd Uebbing, X4.286 **Salvatore Dinardo**, Christopher Buchhaupt, **Joanna Staneva**, **Anna Wiese**, Ole Andersen, Mederic Gravelle, Remko Scharroo, Jürgen Kusche, Matthias Becker, Jerome Benveniste, and **Michael Kern**

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GMPV5.1/NH2.11/SM6.03, Volcano monitoring with instrument networks (co-organized) , Posters, 17:30–19:00, Hall X2

EGU2018-9845 **Monitoring the Explosive Activity of Turrialba Volcano, Costa Rica, using Doppler Radar and Webcam Observations** by **Matthias Hort**, Geoffroy Avard, Eckhard Gast, Piet Markmann, and **Lea Scharff**

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NP5.1, Inverse Problems, Data Assimilation and Predictability Studies in Geophysics , Posters, 17:30–19:00, Hall X4

X4.342 EGU2018-16309 **Rapid observation system experiments for the observation impact in the ensemble space** by **Tobias Sebastian Finn**, **Gernot Geppert**, and **Felix Ament**

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NP5.3/AS1.5/HS4.8, Advances in statistical post-processing for deterministic and ensemble forecasts (co-organized) , Posters, 17:30–19:00, Hall X4

X4.371 EGU2018-6955 **Evaluation of the statistical-dynamical seasonal prediction of the North Atlantic Oscillation** by **André Düsterhus**, **Mikhail Dobrynin**, and **Johanna Baehr**

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SSS4.9, Microbial carbon use efficiency in soils: methods and environmental controls. , Posters, 17:30–19:00, Hall X3

X3.192 EGU2018-3436 **Composition and state of decay of soil organic matter in permafrost-affected soils of the Lena River Delta, Arctic Russia** by **Isabel Prater**, **Sebastian Zubrzycki**, **Lena Zoor**, and **Carsten W. Mueller**

## Thursday, 12<sup>th</sup> of April

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### Sessions

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NP1.1/CL4.03

#### Mathematics of Planet Earth (including Lewis Fry Richardson Medal Lecture and NP Division Outstanding ECS Lecture) (co-organized)

Convener: **Valerio Lucarini** | Co-Conveners: Jochen Broecker, Dan Crisan, Darryl Holm, Tobias Kuna, Freddy Bouchet, Valerio Lembo, Davide Faranda, Jeroen Wouters, Michael Ghil, Jeffrey Weiss, and Martin Rypdal

Orals

/ Thu, 12 Apr, 08:30–12:00 / Room L3

/ Thu, 12 Apr, 13:30–17:00 / Room E2

Posters

/ Attendance Thu, 12 Apr, 17:30–19:00 / Hall X4

### Orals

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OS2.1, Open Session on Coastal and Shelf Seas , Orals, 08:30–10:00, Room 1.85

08:30– 08:45 EGU2018-7290 **A Low Frequency Subpolar Gyre Signal Identified in the Atlantic Inflow to the North Sea** by **Vimal Koul**, **Johanna Baehr**, and **Corinna Schrum**

CL5.04, Synoptic climatology – methods and applications , PICO, 10:30–12:00, PICO spot 1

10:58– 11:00 EGU2018-1783 **Twenty-first century CMIP5 projections of atmospheric circulation over British Isles under RCP4.5 and RCP8.5 scenarios** by **Paolo De Luca**, Colin Harpham, Rob Wilby, Gregor Leckebusch, **Christian Franzke**, and John Hillier

ESSI3.2, Innovative Evaluation and Prediction for Large Earth Science Datasets , Orals, 13:30–15:00, Room M2

13:30– 13:45 EGU2018-6894 **Advanced score for the evaluation of prediction skill** by **André Düsterhus** and Sabrina Wahl

## Posters

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IE2.1/NP3.4/AS1.8/CL2.08/CR1.9/OS1.20/ST4.7, Climate Variability Across Scales and Climate States (co-organized) , Posters, 17:30–19:00, Hall X4

EGU2018-7808 **Annual and semiannual cycles of near-surface temperature and X4.356 baroclinic activity in mid-latitudes** by **Valerio Lembo**, Isabella Bordi, and Antonio Speranza

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AS1.23, Tropical Meteorology , Posters, 17:30–19:00, Hall X5

EGU2018-7019 **Robust and non-robust impacts of atmospheric cloud-radiative X5.23 interactions on the tropical circulation and its response to surface warming** by **Nicole Albern**, Aiko Voigt, **Stefan A. Buehler**, and **Verena Grützun**

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CL2.01, Earth radiation budget, radiative forcing and climate change , Posters, 17:30–19:00, Hall X5

EGU2018-13647 **The fast response of the tropical circulation to CO2 forcing** by **Elina X5.345 Plesca**, **Verena Grützun**, and **Stefan A. Buehler**

EGU2018-10088 **Inter-hemispheric differences in energy budget and cross-equatorial X5.348 transport anomalies during the 20th Century** by **Valerio Lembo**, Doris Folini, Martin Wild, and Piero Lionello

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NP1.1/CL4.03, Mathematics of Planet Earth (including Lewis Fry Richardson Medal Lecture and NP Division Outstanding ECS Lecture) (co-organized) , Posters, 17:30–19:00, Hall X4

EGU2018-10073 **Hyperbolic Covariant Coherent Structures in Two Dimensional Flows X4.306** by **Gualtiero Badin** and Giovanni Conti

EGU2018-18316 **Scale Separation of the Dominating Linear Instability Modes and the X4.313 Background State in a Primitive Equation Model** by **Sebastian Schubert** and **Valerio Lucarini**

EGU2018-14876 **Covariant Lyapunov vectors of a quasi-geostrophic baroclinic model: X4.314 analysis of instabilities and feedbacks** by **Sebastian Schubert** and **Valerio Lucarini**

EGU2018-8169 **A new diagnostic tool for water, energy and entropy budgets in X4.316 climate models** by **Valerio Lembo** and **Valerio Lucarini**

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Abstract management

IE2.8/CL4.02/AS1.7/BG1.40/NP2.6/OS1.22, Constraining climate sensitivity from various lines of evidence (co-organized), Posters, 17:30–19:00, Hall X5

EGU2018-9242 **A modern radiative-convective equilibrium model**

X5.375 **Lukas Kluft**, Sally Dacie, Stefan A. Buehler, Hauke Schmidt, and Bjorn Stevens  
Thu, 12 Apr, 17:30–19:00, Hall X5, X5.375

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NP3.1, Scaling, multifractals and Nonlinear dynamics in the atmosphere, ocean and environment , Posters, 17:30–19:00, Hall X4

X4.347 EGU2018-6120 **Forced stationary waves in the planetary geostrophic equations on the sphere** by **Stamen Dolaptchiev**, **Thomas Reitz**, and Ulrich Achatz

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OS4.5, Copernicus Marine Environment Monitoring Service (CMEMS) , Posters, 17:30–19:00, Hall X4

EGU2018-18338 **Particle transport model sensitivity on wave-induced processes in the coupled model system** by **Joanna Staneva**, Marcel Ricker, Arno Behrens, Sebastian Grayek, **Corinna Schrum**, and Øyvind Breivik

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SM4.03, Ambient seismic noise techniques: sources, monitoring, and imaging , Posters, 17:30–19:00, Hall X2

EGU2018-10806 **Source and propagation effects on the ratio of Love to Rayleigh waves in ocean generated seismic noise** by **Céline Hadziioannou**, Djamel Ziane, and **Carina Juretzek**

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## Friday, 13<sup>th</sup> of April

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### Sessions

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GMPV6.1/AS3.32/CL5.22/NH2.7

#### **Volcanic Ash – Generation, Transport, Impacts and Applications (co-organized)**

Convener: **Gholam Ali Hoshyaripour** | Co-Conveners: Britta Jensen, Ulrich Kueppers, Elena Maters, Gill Plunkett, and Peter Webley

Orals

/ Fri, 13 Apr, 08:30–12:00 / Room G1

Posters

/ Attendance Fri, 13 Apr, 17:30–19:00 / Hall X2

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SC1.25/CL6.07/NP8.4

Scales and scaling in the climate system (co-organized)

Convener: Shaun Lovejoy | Co-Conveners: **Christian Franzke** and Thomas Laepple

Fri, 13 Apr, 10:30–12:00 / Room -2.31

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SMI54

Scales and Scaling in the Climate System

Convener: **Christian Franzke**

Fri, 13 Apr, 12:15–13:15 / Room 2.17

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NP2.4

#### **New model and data-based approaches to study climate behavior**

Convener: Jürgen Kurths | Co-Conveners: Alexander Feigin, Sergey Kravtsov, Henk A. Dijkstra, Dmitri Kondrashov, Michael Ghil, **Christian Franzke**, Petra Friederichs, and Paul Williams

Orals

/ Fri, 13 Apr, 08:30–12:00 / Room M1

Posters

/ Attendance Fri, 13 Apr, 13:30–15:00 / Hall X4

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## Orals

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NP2.4, New model and data-based approaches to study climate behavior , Orals, 08:30–10:00, Room M1

09:00– 09:15 EGU2018-8386 **Predictability of Fat-tailed Extremes** by **Tamas Bodai** and **Christian Franzke**

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SSP3.10/BG6.3/GMPV3.6, Formation and diagenetic pathways of carbonate archives: From ACC to dolomite (co-organized) , Orals, 08:30–10:00, Room 0.31

09:30– 09:45 EGU2018-2692 **Sulfate-driven anaerobic oxidation of methane catalyzes dolomite formation: A case study from the northern South China Sea** by **Yang Lu**, Xiaoming Sun, Huifang Xu, Hiromi Konishi, Zhiyong Lin, Li Xu, Tingting Chen, Xinrong Hao, Hongfeng Lu, and **Jörn Peckmann**

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SC1.25/CL6.07/NP8.4, Scales and scaling in the climate system (co-organized) , 10:30–12:00, Room -2.31

GI1.1/EMRP4.3/ESSI2.10/SSS13.15, Applications of Data, Methods and Models in Geosciences (co-organized) , Orals, 10:30–12:00, Room L3

10:45–11:00 EGU2018-3047 **WOCE-Argo Global Hydrographic Climatology** by **Viktor Gouretski**

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SM4.02, Imaging and inversion to explore the Earth's crust , Orals, 10:30–12:00, Room -2.21

10:30– 10:45 EGU2018-3434 **Ground-penetrating radar as a tool to access coastal sedimentary climate- and sea-level archives** by **Sebastian Lindhorst**

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AS5.10/BG1.13/CL5.08/HS3.6/OS1.18, High resolution weather and climate models on large supercomputers (co-organized) , Orals, 13:30–15:00, Room 0.94

13:45– 14:00 EGU2018-2471 **Performance Predictions for Storm-Resolving Simulations of the Climate System** by **Philipp Neumann**, **Joachim Biercamp**, **Luis Kornblueh**, **Matthias Brück**, Daniel Klocke, and **Niklas Röber**

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## Posters

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NP2.4, New model and data-based approaches to study climate behavior , Posters, 13:30–15:00, Hall X4

X4.260 EGU2018-181 **An energy consistent stochastic 2 layer QG model** by **Federica Gugole** and **Christian Franzke**

X4.268 EGU2018-3802 **Predictability and Non-Gaussian Characteristics of the North Atlantic Oscillation** by Thomas Önskog, **Christian Franzke**, and Abdel Hannachi

X4.275 EGU2018-12339 **Vorticity and geopotential height extreme values in ERA-Interim data during boreal winters** by **Richard Blender**, Christoph Raible, and **Christian Franzke**

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AS5.6/BG4.14/CL5.09/OS1.14, Recent Developments in Numerical Earth System Modelling (co-organized) , Posters, 17:30–19:00, Hall X5

X5.306 EGU2018-1853 **Effects of varying complexity in the representation of marine biological processes in Earth System Models** by **Rémy Asselot**, **Frank Lunkeit**, Phil Holden, and **Inga Hense**

X5.307 EGU2018-1720 **Towards a better understanding of coupling strategies by use of a prototypical 1D Ocean-Ice interaction** by **Anusha Sunkisala**, **Konrad Simon**, and **Jörn Behrens**

X5.308 EGU2018-1719 **Enabling adaptive mesh refinement for tracer transport in ECHAM6** by **Yumeng Chen**, **Konrad Simon**, and **Jörn Behrens**

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GM11.4/NH11.16, Coastal zone geomorphologic interactions: natural versus human-induced driving factors (co-organized) , Posters, 17:30–19:00, Hall X2

X2.125 EGU2018-15309 **Climate forcing of salt-marsh archives of the German North Sea coast** by **Dorothea Bunzel**, **Katharina Müller-Navarra**, **Yvonne Milker**, Helge Arz, and **Gerhard Schmiedl**

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GMPV5.3/AS3.9/NH6.11, Satellite-based quantification and modelling of volcanic gas, aerosol and ash emission: dispersal and chemical evolution (co-organized) , Posters, 17:30–19:00, Hall X2

X2.379 EGU2018-1368 **Using picosatellites for 4-D imaging of volcanic clouds: proof of concept using ISS photography of the 2009 Sarychev Peak eruption** by **Klemen Zakšek**, **Mike R. James**, **Matthias Hort**, Tiago Nogueira, and **Klaus Schilling**

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SM4.02, Imaging and inversion to explore the Earth's crust , Posters, 17:30–19:00, Hall X2

X2.433 EGU2018-15499 **Permian to recent structural evolution of the North German Basin margin – insights from high-resolution reflection seismic data.** by **Niklas Ahlrichs**, **Christian Huebscher**, Volkmar Damm, Vera Noack, and **Michael Schnabel**