

MARUM contributions @ EGU 2017

MARUM presenter/convener; MARUM member

Monday, 24 April

Session OS1.2/AS1.20/CL1.29 **The North Atlantic: natural variability and global change (co-organized)**

Convener: **Monika Rhein**, Co-Conveners: Paul G. Myers, Richard Greatbatch, Rym Msadek, Susan Lozier, Andreas Born
Orals: 08:30 – 12:00 and 13:30 – 17:00, Room D2
Posters: 17:30 – 19:00, Hall X4

Oral **Monika Rhein**, *Dagmar Kieke*, *Achim Roessler*, Christian Mertens, *Reiner Steinfeldt*, Birgit Klein, Claus Böning, *Tilia Breckenfelder*, Ilaria Stendardo, *Vasco Müller*, *Hannah Nowitzki* “The circulation in the North Atlantic subpolar gyre” OS1.2/AS1.20/CL1.29, 08:30–08:45, Room D2

Oral **André Paul**, *Matthias Prange*, Irina Rogozhina, *Pepijn Bakker*, *Michal Kucera*, *Stefan Mulitza*, *Michael Schulz*, Julien Seguinot “British-Irish ice sheet during the LGM consistent with a reduced northward ocean heat transport” CL0.00, 10:45–11:00, Room 0.14

Oral **Katrin Huhn**, Nina Kukowski, *Tim Freudenthal*, Gareth Crutchley, Andreas Goepel, Stuart Henrys, *Sabine Kasten*, *Norbert Kaul*, *Jannis Kuhlmann*, Joshu Mountjoy, Alan Orpin, *Thomas Pape*, Cornelius Schwarze, Kai-Uwe Totsche, Marta Torres, *Heiner Villinger* “SlamZ: Slide activity on the Hikurangi margin, New Zealand – First results of the RV Sonne expedition SO247” NH5.6/SM10.7, 15:30–15:45, Room L7

Oral **Reiner Steinfeldt**, *Dagmar Kieke*, and *Monika Rhein* “Variability of the storage of anthropogenic carbon in the subpolar North Atlantic over the last two decades” OS1.2/AS1.20/CL1.29, 16:45–17:00, Room D2

Oral Francisco J. Bonet García, María Suárez-Muñoz, Diarmuid O Conchubhair, *Tina Dohna*, and Nadia Lo Bue “Cooperation of international Research Infrastructures to address environmental global challenges” SM5.1/ESSI2.10/GI1.6, 08:45–09:00, Room 0.96

Oral Rui Bao, Michael Strasser, Ann McNichol, Negar Haghipour, Cameron McIntyre, *Gerold Wefer*, and Timothy Eglinton “Rolling in the Deep:

Tectonically-triggered sediment and carbon export to the Hadal zone” SM2.2/EMRP4.13/GD5.8/NH4.13/TS5.7, 16:45–17:00, Room 0.96

Poster **Robert Huber**, Laura Beranzoli, Markus Fiebig, Olivier Gilbert, Paolo Laj, Mauro Mazzola, Jean-Daniel Paris, Helle Pedersen, *Markus Stocker*, Vito Vitale, *Christoph Waldmann*, the ENVRI WP3 “Common solutions for power, communication and robustness in operations of large measurement networks within Research infrastructures” SM5.1/ESSI2.10/GI1.6, 17:30–19:00, Hall X3

Poster **Dagmar Kieke**, *Reiner Steinfeldt*, *Monika Rhein*, Oliver Huhn “Changes in the formation of AAIW and storage of anthropogenic carbon in the South Atlantic in the 1990s and 2000s” OS1.7, 17:30–19:00, Hall X4

Poster **Sri Nandini** “Past and future impact of North Atlantic teleconnection patterns on the hydroclimate of the Caspian catchment area in CESM1.2.2 and observations” CL0.00, 17:30–19:00, Hall X5

Poster **Hannah Nowitzki**, *Monika Rhein*, *Achim Roessler*, and *Dagmar Kieke* “Variability of transport and pathways of the North Atlantic Current: a comparison of satellite altimetry data and observational data from pressure inverted echo sounders” OS1.2/AS1.20/CL1.29, 17:30–19:00, Hall X4

Poster **Annegret Rüßbült**, *Karin A.F. Zonneveld*, and Vera Pospelova “The matter of preservation: A comparison of recent organic-walled dinoflagellate cyst assemblages in sediment trap and core top sediments off Cape Blanc (NW Africa)” CL1.15, 17:30–19:00, Hall X5

Poster Jens Klump, *Robert Huber* “What is the Value proposition of Persistent Identifiers?” ESSI2.3, 17:30–19:00, Hall X4

Poster Ilaria Stendardo, *Vasco Müller*, *Dagmar Kieke*, Paul G. Myers, Clark Pennelly, *Monika Rhein*, *Reiner Steinfeldt* “Volume eddy-driven heat and freshwater fluxes across 47°N in the Atlantic Ocean” OS1.2/AS1.20/CL1.29, 17:30–19:00, Hall X4

Poster Manuela Köllner, Birgit Klein, *Dagmar Kieke*, Holger Klein, *Achim Roessler*, *Monika Rhein* “Water Mass Variability at the Mid-Atlantic Ridge and in the Eastern North Atlantic” OS1.2/AS1.20/CL1.29, 17:30–19:00, Hall X4

Poster Ayoze Castro, Simone Memé, Eduardo Quevedo, *Christoph Waldmann*, Jay Pearlman, Eric Dolery, Octavio Llinás “Management tools for R&D engineering projects: Coordination perspective for large international consortium (NeXOS)” EOS15, 17:30–19:00, Hall X4

Find us at the MARUM booth: no. 16 on the ground floor

Tuesday, 25 April

Session OS1.2/AS1.20/CL1.29 **The North Atlantic: natural variability and global change**

Convener: **Monika Rhein**, Co-Conveners: Paul G. Myers, Richard Greatbatch, Rym Msadek, Susan Lozier, Andreas Born
Orals: 08:30–10:00, Room G2

Session GI0.1 **Open Session on Geosciences Instrumentation and Methods (including Christiaan Huygens Medal Lecture)**

Convener: Walter Schmidt, Co-Conveners: Jens Klump, Valery Korepanov, *Michael Diepenbroek*, Håkan Svedhem
Orals: 08:30–11:30 / Room L2
Posters: 17:30–19:00 / Hall X4

Session GI2.1/AS4.42/BG9.21/CL5.16/NH6.10/PS1.6/ST3.7 **Atmospheric and Meteorological Instrumentation (co-organized)**

Convener: Jothiram Vivekanandan, Co-Conveners: Mike Rose, *Christoph Waldmann*, Manfred Lange, Anders La Cour-Harbo, Guifu Zhang
Orals: 13:30–17:00 / Room 0.96
Posters: 17:30–19:00 / Hall X4

Oral **Marius Becker**, Christian Maushake, Steffen Grünler, *Christian Winter* “Evaluation of ship-based sediment flux measurements by ADCPs in tidal flows” HS9.1/GM4.9/SSS12.22, 08:45–09:00, Room C

Oral Yoshi Ito, *Matt Ikari*, Kohtaro Ujiie, *Achim Kopf* “Slip-dependent weakening on shallow plate boundary fault in the Japan subduction zone: shallow coseismic slip facilitated by foreshock afterslip” EMRP1.3/GI3.16/GMPV6.1/SM2.4/TS5.6, 16:45–17:00, Room 0.31

Poster **Gerald Herrling**, *Markus Benninghoff*, Anna Zorndt, *Christian Winter* “Channel-shoal morphodynamics in response to distinct hydrodynamic drivers at the outer Weser estuary” HS9.1/GM4.9/SSS12.22, 17:30–19:00, Hall A

Poster **Matt Ikari** and *Achim Kopf* “Frictional slip instability in plate-rate laboratory experiments: Observations and mechanisms” EMRP1.3/GI3.16/GMPV6.1/SM2.4/TS5.6, 17:30–19:00, Hall X2

Poster **Hermann Kudrass**, Björn Machalett, Luisa Palamenghi, Inka Meyer „Frequency changes of tropical cyclones during the last century recorded in a canyon of the northern Bay of Bengal” NH5.4/AS4.30/OS2.7, 17:30–19:00, Hall X3

Poster Verner Brandbyge Ernstsen, Lars Øbro Hansen, *Marius Becker*, Lara Brivio, Torben Vang, Per Lynnerup Trinhammer, Katrine Juul Andresen, Marit-Solveig Seidenkrantz, Lars Ole Boldreel, Jesper Bartholdy “Geodiversity of a large meander bend in the Little Belt strait in the inner Danish waters” GM1.3/EOS19/SSS3.12, 17:30–19:00, Hall X2

Poster Christophe Galerne, *Jörg Hasenclever* “LIP volcanism and paleo-environmental crises – impact of magma emplacement sequence on thermogenic degassing rates from the Karoo sedimentary basin” SSP2.4/GMPV1.5, 17:30–19:00, Hall X1

Poster Tobias Schwestermann, Hiske G. Fink, *Gerold Wefer*, Timo Fleischmann, Cecilia M. McHugh, Ken Ikehara, Toshiya Kanamatsu, Arata Kioka, and Michael Strasser and the SO-251A Science Party “XRF analysis of turbidites in the Japan Trench: Evidences of provenances?” SSP3.7, 17:30–19:00, Hall X1

Wednesday, 26 April

Session CL4.04/OS1.16 **Decadal to millennial scale climate variability of the late Quaternary (co-organized)**

Conveners: Joel Pedro, Helle Astrid Kjær, Marit-Solveig Seidenkrantz, Co-Conveners: Anne de Vernal, Ruth Mottram, Kerim Nisancioglu, Markus Jochum, Mari. F. Jensen, *Michal Kucera*, Antoon Kuijpers, Paul G. Myers, Christof Pearce
Orals: 08:30–12:00 / 13:30–15:00 / Room F2
Posters: 17:30–19:00 / Hall X5

Session SSP2.2 **The Need for Integrated Stratigraphy - Recent advances in cyclostratigraphy, astrochronology, radioisotopic dating and age modelling**

Convener: Werner Piller, Co-Conveners: Urs Schaltegger, Frederik Hilgen, Daniel Condon, Lucas Lourens, Christian Zeeden, *David De Vleeschouwer*
Orals: 13:30–15:00 / Room 1.85
Posters: 15:30–17:00 / Hall X2

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Wednesday, 26 April cont.

- Oral **Tina Dohna** “Global Challenges: Coral Reef Monitoring” in Session SMP53 COOP+ Splinter meeting on Global Challenges (public), 08:30–10:00, Room 0.51
- Oral **Alessio Rovere**, Daniel Harris, Elisa Casella, *Thomas Lorscheid*, Paolo Stocchi, Napayalage Nandasena, Michael Sandstrom, William D'Andrea, Blake Dyer, and Maureen Raymo “Superstorms at the end of the Last Interglacial (MIS 5e)? Modeling paleo waves and the transport of giant boulders.” NH5.3/GM12.8/OS5.8/SSP3.14, 09:15–09:30, Room L8
- Oral **Marius Becker**, Christian Maushake, *Christian Winter* “Mud-induced periodic stratification in the hyperconcentrated Ems estuary” HS10.1/GM12.7/OS2.4 10:45–11:00, Room 2.15
- Oral Monica Ionita-Scholz, *Thomas Felis*, Norel Rimbu, *Gerrit Lohmann* “Frequency of extreme daily temperatures (HadEX2) over Eurasia documented in a northern Red Sea coral oxygen isotope record during the last century” CL1.25/AS4.26/HS2.4.5, 14:00–14:15, Room 0.96
- Oral **Anna Joy Drury**, *Thomas Westerhold*, *Thomas Frederichs*, Jun Tian, Roy Wilkens, James E.T. Channell, Helen Evans, Cédric M. John, Mitch Lyle, *Ursula Röhl* “Late Miocene climate and orbital time scale reconciliation from a deep-sea perspective” SSP2.2, 14:30–14:45, Room 1.85
- Oral **Gerhard Bartzke**, Benedict D. Rogers, Georgios Fourtakas, Athanasios Mokos, Ricardo B. Canelas, *Katrin Huhn* “Does fluid infiltration affect the motion of sediment grains? – A 3-D numerical modelling approach using SPH” GM3.3/SSS3.13/TS4.6, 15:45–16:00, Room N1
- Poster **Patrizia Geprägs**, *Marta E. Torres*, *Miriam Römer*, *Thomas Pape*, *Susan Mau*, *Paul Wintersteller*, and *Gerhard Bohrmann* “Methane in the water column above an active mud volcano in the Calabrian margin, SE Italy” BG5.2, 13:30–15:00, Hall A
- Poster **David De Vleeschouwer**, *Maximilian Vahlenkamp*, Michel Crucifix, *Heiko Pälike* “Alternating Southern and Northern Hemisphere climate response to astronomical forcing during the past 35 m.y.” SSP2.2, 15:30–17:00, Hall X2
- Poster **Sergey Kotov** and *Heiko Paelike* “MyDTW – Dynamic Time Warping program for stratigraphical time series” SSP2.2, 15:30–17:00, Hall X2

- Poster Roy Wilkens, *Anna Joy Drury*, *Thomas Westerhold*, Mitchell Lyle, Thomas Gorgas, Jun Tian “Revisiting the Ceara Rise, equatorial Atlantic Ocean: isotope stratigraphy of ODP Leg 154” SSP2.2, 15:30–17:00, Hall X2
- Poster **Jörg Hasenclever**, *Miguel Andres-Martinez*, *Marta Perez-Gussinye*, Lars Rüpke, Jason P. Morgan “On incorporating plasticity within numerical models of lithosphere deformation” TS8.4/GD8.6/GM3.10, 17:30–19:00, Hall X2
- Poster **Jonas Löb**, Christian Mertens, Janna Köhler, *Maren Walter*, Jin-Song von Storch, *Monika Rhein* “Observations and Models of Low Mode Internal Waves in the Ocean” OS5.1/AS1.12, 17:30–19:00, Hall X4
- Poster Lisa K. Behrens, *Andreas Hilboll*, Enno Peters, Andreas Richter, Leonardo Alvarado, Folkard Wittrock, *John P. Burrows*, *Mihalis Vrekoussis* “MAX-DOAS measurements of African continental pollution outflow over the Atlantic Ocean” AS3.11/GI2.7, 17:30–19:00, Hall X5

Thursday, 27 April

- Oral **Tim Freudenthal**, *Markus Bergenthal*, *Gerhard Bohrmann*, *Thomas Pape*, *Achim Kopf*, *Katrin Huhn-Frehers*, *Karsten Gohl*, and *Gerold Wefer* “Sea Bed Drilling Technology MARUM-MeBo: Overview on recent scientific drilling campaigns and technical developments” SSP1.3/EMRP4.37/GI3.7, 14:15–14:30, Room 1.85
- PICO Eric Delory, Joaquin del Rio, Lars Golmen, Nils Roar Hareide, Jay Pearlman, Jean-Francois Rolin, *Christoph Waldmann*, Oliver Zielinski “NeXOS, developing and evaluating a new generation of insitu ocean observation systems.” OS4.5, 14:08–14:10, PICO spot 5a
- Poster **Maren Bender**, Thomas Mann, Paolo Stocchi, Adam Switzer, Benjamin P Horton, Muhammad Lukman, Jamaluddin Jompa, and *Alessio Rovere* “A Holocene sea-level database for Southeast Asia” CL4.10/CR1.13/OS1.12, 17:30–19:00, Hall X5
- Poster **Fiona Rochholz**, *Heiko Pälike*, and *André Paul* “Understanding climate sensitivity to greenhouse gas concentrations and orbital forcing in the cGenie Earth System Model of Intermediate Complexity” NP3.3/CL5.19, 17:30–19:00, Hall X4

Thursday, 27 April cont.

- Poster **Salvador Ruiz Soto**, *Karin A.F. Zonneveld*, Timme Donders, and Francesca Sangiorgi “Modern pollen distribution in the Adriatic Sea reflecting river discharge provenance.” CL4.15, 17:30–19:00, Hall X5
- Poster Thomas Gorgas, Ronald Conze, Henning Lorenz, Kirsten Elger, Damian Ulbricht, Roy Wilkens, Mitchel Lyle, *Thomas Westerhold*, Anne Drury, Jun Tian, *Annette Hahn* “The DIS, the CODD, IGSNs and DOIs: Tools you need to succeed with your ocean and continental scientific drilling project” SSP1.3/EMRP4.37/GI3.7 **Highlight**, 17:30–19:00, Hall X2
- Poster Fatima Abrantes, Teresa Rodrigues, Cristina Ventura, Célia Santos, Baohua Li, Jin-Kyoung Kim, *Ursula Roehl*, Antje Voelker, and David Hodell “Past Productivity conditions off SW Iberia at the transition from the 41 ky to the 100 ky world; The record of IODP Sites U1385 and U1391” SSP1.3/EMRP4.37/GI3.7, 17:30–19:00, Hall X2

Friday, 28 April

- Session CL1.31 **Paleoclimates and ice dynamics from the Cretaceous to the Holocene: learning about past and future climate changes from numerical experiments and model-data comparisons**
Convener: Masa Kageyama, Co-Conveners: *André Paul*, Julia Hargreaves, *Michal Kucera*, Peter Bijl, Carlota Escutia, Aisling Dolan
Orals: 08:30–12:00 / Room F2
Posters: 17:30–19:00 / Hall X5
- Oral **Maximilian Vahlenkamp**, Igor Niezgodzki, *David De Vleeschouwer*, *Torsten Bickert*, Dustin Harper, *Gerrit Lohmann*, *Heiko Pälike*, James C. Zachos “Astronomically paced middle Eocene deepwater circulation in the western North Atlantic” CL1.31, 10:45–11:00, Room F2
- Oral **Markus Stocker**, Stefano Nativi, Jay Pearlman “Machine actionable information about observed environments” ESS12.5, 14:15–14:30, Room 2.44
- Poster **Markus Benninghoff** and *Christian Winter* “Decadal Evolution of Wadden Sea morphology, Germany” GM6.1/CL4.12/TS4.5, 17:30–19:00, Hall X2

- Poster **Charlotte Breitzkreuz**, *André Paul*, *Takasumi Kurahashi-Nakamura*, *Martin Losch*, and *Michael Schulz* “A dynamical reconstruction of the pre-industrial and the LGM ocean state constrained by global $\delta^{18}O$ data” CL1.31, 17:30–19:00, Hall X5
- Poster **Xueqin Zhao**, *Lydie Dupont*, Michael E Meadows, *Enno Schefuß*, *Ilham Bouimetarhan*, *Gerald Wefer* “Holocene climate variability and oceanographic changes off western south Africa” CL1.21/BG9.59/OS2.10/SSP2.8/SSS3.15, 17:30–19:00, Hall X5

MARUM members are also involved in

MARUM booth (no. 16, ground floor): *Christina Klose*, *Ulrike Prange*

Scientific Drilling IODP-ICDP (booths no. 60/61/62/63): *Patrizia Geprägs*, *Ulrike Prange*, *Ulla Röhl*

MARUM/GLOMAR alumni event in cooperation with Future Ocean (Kiel) and CEN/CLISAP/SICSS (Hamburg): Wednesday, 26 April, 16:00-18:00 at booths no. 14/16/17

All current and previous MARUM members are invited!