

Final Symposium:
Research Group on 'BioGeoChemistry of Tidal Flats'
May 19-20, 2009



Programme

Tuesday, May 19, 2009

09:00-10:00	Registration	
10:00-10:10	Welcome	
10:10-11:10	Oral Presentations 1	
1-1 10:10-10:30	J. Rullkötter ¹	Research group 'BioGeoChemistry of Tidal Flats' - Introduction and overview
1-2 10:30-10:50	E.V. Stanev ^{4,1} , J.-O. Wolff ¹ , B. W. Flemming ⁶ , J.V. Staneva ⁴ , A. Bartholomä ⁷ , R. Reuter ⁵ , T. Badewien ⁵	Hydrodynamics and sediment dynamics of the East Frisian Wadden Sea: Lessons learned from recent numerical modelling
1-3 10:50-11:10	J. V. Staneva ⁴ , W. Koch ⁴ , E. Stanev ^{4,1} , S. Dick (BSH, Hamburg)	Extreme changes in the thermohaline stratification in tidal basins: a case study for the German Bight
11:10-11:40	Coffee break	
11:40-13:00	Oral presentations 2	
2-1 11:40-12:00	H. Burchard ² , G. Flöser ⁴ , J.V. Staneva ⁴ , T. Badewien ⁵ , R. Riethmüller ⁴	Impact of density gradients on net sediment transport into the Wadden Sea
2-2 12:00-12:20	G. Flöser ⁴ , H. Burchard ² , V. Mohrholz ² , R. Riethmüller ⁴	Observational evidence for estuarine circulation in the German Wadden Sea
2-3 12:20-12:40	A. Bartholomä ⁶ , A. Kubicki ⁶ , T. Badewien ⁵ , B.W. Flemming ⁶	Wind, waves, suspended sediments during extreme events - data of the time series station Spiekeroog
2-4 12:40-13:00	K. Lettmann ¹ , J.-O. Wolff ¹ , T. Badewien ⁵	Modeling the impact of wind and waves on suspended particulate matter fluxes in the East Frisian Wadden Sea (southern North Sea)
13:00-14:00	Lunch	
14:00-15:00	Poster session 1	
15:00-16:20	Oral presentations 3	
3-1 15:00-15:20	B.W. Flemming ⁶ , W. Xu ⁶ , T.S. Chang (KIGAM, Deajeon, Korea)	Mud in the Wadden Sea: signatures of sortable silt and aggregates
3-2 15:20-15:40	J. März ¹ , K. Wirtz ⁴ , U. Feudel ¹	Resolving size dynamics of suspended particulate matter (SPM) by using a distribution-based model
3-3 15:40-16:00	A. Lemke ¹ , M. Lunau ⁷ , J. Stone ¹ , O. Dellwig ² , M. Simon ¹	Spatio-temporal dynamics of suspended matter properties and bacterial communities in the backbarrier tidal flat system of Spiekeroog Island
3-4 16:00-16:20	A. Lemke ¹ , M. Lunau ⁷ , J. Stone ¹ , M. Simon ¹	Dynamics of bacterial growth and amino acid turnover of in a tidal flat system of the German Wadden Sea
16:20-16:50	Coffee break	

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16:50-18:10	Oral presentations 4	
4-1 16:50-17:10	C. Zhao (IRAC, Univ. of Oldenburg), T. Brinkhoff ¹ , M. Burchardt (IRAC, Univ. of Oldenburg), M. Simon ¹ , G. Wittstock (IRAC, Univ. of Oldenburg)	Surface selection, adhesion and retention behavior of marine bacteria on synthetic organic surfaces using self-assembled monolayers and atomic force microscopy
4-2 17:10-17:30	T. Dittmar ^{3,1}	Dissolved organic matter as a key player in coastal biogeochemical processes: perspectives for North Sea research
4-3 17:30-17:50	R. Reuter ⁵ , T. Badewien ⁵	What did we learn from the Time Series Station Wattenmeer?
4-4 17:50-18:10	J. van Beusekom (AWI Sylt)	Temporal (long-term) and spatial patterns in the response of the southern and northern Wadden Sea to riverine nutrient loads
18:10-19:00	Poster session 2	
19:00	Dinner	

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09:00-10:20	Oral presentations 5	
5-1 09:00-09:20	M. Grunwald ^{1,4} , O. Dellwig ² , C. Kohlmeier ¹ , M. Beck ¹ , G. Flöser ⁴ , C. Frank ⁴ , S. Kotzur ¹ , N. Kowalski ² , G. Liebezeit ¹ , H.-J. Brumsack ¹	Nutrient dynamics in a tidal basin of the Southern North Sea: Time-series and model simulations
5-2 09:20-09:40	M.E. Böttcher ² , A.M. Al-Raei ³ , K. Bosselmann (FTZ Büsum), E. Walpersdorf (Univ. of Copenhagen, DK)	The biogeochemistry of carbon-manganese-iron- sulfur cycling in intertidal surface sediments of the southern North Sea
5-3 09:40-10:00	N. Kowalski ² , O. Dellwig ² , M. Beck ¹ , M. Grunwald ^{1,4} , H.-J. Brumsack ¹ , J.E.E. van Beusekom (AWI Sylt), M.E. Böttcher ²	Biogeochemical metal tracers for dynamics of benthic-pelagic coupling in temperate tidal systems
5-4 10:00-10:20	O. Dellwig ² , J. Dippner ² , T. Riedel ¹ , M. Beck ¹ , N. Kowalski ² , M. Grunwald ^{1,4} , S. Kotzur ¹ , T. Badewien ⁵ , M.E. Böttcher ² , H.-J. Brumsack ¹	Manganese dynamics in the "Bioreactor Wadden Sea": Seasonality and budget calculations
	Coffee break	
10:50-12:30	Oral presentations 6	
6-1 10:50-11:10	B. Engelen ¹ , R. Wilms ¹ , B. Köpke ¹ , A. Gittel (Univ. of Aarhus, DK), Y. Hilker ¹ , J. Graue ¹ , M. Könneke ¹ , H. Sass (Cardiff Univ., UK), H. Cypionka ¹	A decade of subsurface microbiology on tidal-flat sediments - How did we start and where are we now?
6-2 11:10-11:30	M. Beck ¹ , O. Dellwig ² , B. Engelen ¹ , A. Gittel (University of Aarhus, DK), J. Köster ¹ , K. Lettmann ¹ , T. Riedel ¹ , H. Cypionka ¹ , J. Rullkötter ¹ , H.-J. Brumsack ¹	The bioreactor Janssand: High microbial activity and organic matter turnover at tidal flat margins
6-3 11:30-11:50	U. Werner ³ , M. Billerbeck ³ , H. Røy (University of Aarhus, DK), D. de Beer ³	Physics controls microbial activities in intertidal permeable flats

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6-4 11:50-12:10	W.S. Moore (Univ. South Carolina, USA & HWK, Delmenhorst), M. Beck ¹ , T. Riedel ¹ , M.R. van der Loeff ⁷ , O. Dellwig ² , T.J. Shaw (Univ. of South Carolina, USA), H.-J. Brumsack ¹	Fluxes of pore waters which transport metals and nutrients to the German Wadden Sea
6-5 12:10-12:30	T. Riedel ¹ , J. Köster ¹ , H. Freund ¹ , H.-J. Brumsack ¹ , J. Rullkötter ¹	Salt water intrusion into the coastal aquifer between Spiekeroog and Neuharlingersiel (German Wadden Sea)
12:30-13:30	Lunch	
13:30-14:15	Poster session 3	
14:15-15:35	Oral presentations 7	
7-1 14:15-14:35	J. E. Kostka (Florida State Univ., USA & HWK, Delmenhorst)	Nitrogen removal from permeable marine sediments: new pathways and the microorganisms that drive them
7-2 14:35-14:55	B. Veuger, D. van Oevelen (NIOO, Center for Marine and Estuarine Ecology, Yerseke, NL)	Microbial C and N in intertidal mudflat sediment: long term fate and importance as a food source for benthic fauna
7-3 14:55-15:15	S. Lenk ³ , J. Arnds ³ , N. Musat ³ , K. Zerjatke ³ , R. Amann ³ , M. Mußmann ³	Sulfur oxidizing bacteria in marine sediments explored by the full 16S rRNA cycle, functional gene analysis and metagenomics
7-4 15:15-15:35	M. Seidel ¹ , J. Köster ¹ , H. Sass (Cardiff Univ., UK), J. Rullkötter ¹	Membrane lipids as markers of microbial life in a tidal flat system: clues from cultures and cores
15:35-15:50	Closing	

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