

Schedule

March 13, Monday

12:30-13:00: Registration

13:00-13:10 Opening Remark

13:10-13:50 Keynote Presentation

Lagrangian tracking using the high-resolution OFES model

Erik van Sebille (Imperial College London)

Session 1: Indian Ocean and Agulhas Current (Chair: N. Schneider)

13:50-14:10: *Mean equatorial upwelling induced by intraseasonal mixed Rossby-gravity waves in the Indian Ocean*

Yukio Masumoto (U. Tokyo), T. Ogata (U. Tsukuba), M. Nagura (JAMSTEC)

14:10-14:30: *Intraseasonal variability of upwelling in the equatorial Indian Ocean*

Chorong Lee (Hokkaido U.), S. Minobe (Hokkaido U.), Y. N. Sasaki (Hokkaido U.)

14:30-14:50: *Frontolysis by surface heat flux in the Agulhas Return Current region with a focus on a mixed layer processes*

Shun Ohishi (U. Tokyo), T. Tozuka (U. Tokyo), N. Komori (APL, JAMSTEC)

14:50-15:10: *Characteristics of eddy-mean interaction in the Agulhas Current (Natal Pulse) revealed by observation and OFES simulation*

Yoko Yamagami (U. Tokyo), T. Tozuka (U. Tokyo), B. Qiu (U. Hawaii)

15:10-15:30 Coffee Break

Session 2: Atmospheric Science and Model (Chair: T. Miyasaka)

15:30-15:50: *Relationship between East Asian blocking and discharge of polar cold air mass in Northern Hemispheric winter*

Akira Yamazaki (APL, JAMSTEC)

15:50-16:10: *Spectral cumulus parameterization based on cloud-resolving model*

Yuya Baba (APL, JAMSTEC)

16:10-16:30: *An idealized numerical simulation of the long-lived concentric eyewalls with tropical cyclone*

Satoki Tsujino (ISEE, Nagoya U.), K. Tsuboki (ISEE, Nagoya U.)

16:30-16:50: *Atmosphere-ocean coupling effect on typhoon Megi (2010)*

Sachie Kanada (ISEE, Nagoya U.), S. Tsujino (ISEE, Nagoya U.), H. Aiki (ISEE, Nagoya U., JAMSTEC), M. K. Yoshioka (ISEE, Nagoya U.), Y. Miyazawa (APL, JAMSTEC), K. Tsuboki (ISEE, Nagoya U.), I. Takayabu (MRI, JMA)

Session 3: Biogeochemical Research (Chair: Y. N. Sasaki)

16:50-17:10: *Rainfall-enhanced blooming in typhoon wakes*

Yuchun Lin (National Central U.), L.-Y. Oey (National Central U.)

17:10-17:30: *Biogeochemical response to oceanic submesoscale and mesoscale dynamics in the North Pacific Ocean*

Yoshikazu Sasai (RCGC, JAMSTEC), R. Hatashima (Hokkaido U.), S. Minobe (Hokkaido U.), P. Klein (IFREMER-CNRS-UBO-IRD), H. Sasaki (APL, JAMSTEC), B. Qiu (U. Hawaii)

17:30-17:50: *Coupled experiment of an ice-ocean circulation model and a biogeochemical model*

Hatsumi Nishikawa (ILTS, Hokkaido U.), H. Mitsudera (ILTS, Hokkaido U.), H. Yoshinari (ILTS, Hokkaido U.), T. Nakanowatari (NIPR), T. Nakamura (ILTS, Hokkaido U.), K. Uchimoto (RITE), H. Hasumi (AORI, U. Tokyo)

17:50-19:00 Poster Session

19:00-21:00 Reception

March 14, Tuesday

Session 4: Oceanic Response to Atmosphere and Air-sea Flux (Chair: A. Yamazaki)

9:00-9:20: *OFES ensemble integration*

Masami Nonaka (APL, JAMSTEC), H. Sasaki (APL, JAMSTEC), R. Furue (APL, JAMSTEC), K. Takatama (IPRC, U. Hawaii), N. Schneider (IPRC, U. Hawaii)

9:20-9:40: *Steady state ocean response to wind forcing in extratropical frontal regions*

M. F. Cronin (PMEL, NOAA), **Tomoki Tozuka (U. Tokyo, *Presenting author)**

9:40-10:00: *Impact of explosive cyclones on the deep ocean in the North Pacific*

Akira Kuwano-Yoshida (APL, JAMSTEC), H. Sasaki (APL, JAMSTEC), Y. Sasai (RCGC, JAMSTEC), S. Hosoda (RCGC, JAMSTEC)

10:00-10:20: *Wind-dependent subsurface structures and transports in the Pacific Ocean*

Akira Kakiuchi (Tokai U.), K. Kutsuwada (Tokai U.), H. Sasaki (APL, JAMSTEC), Y. Sasai (RCGC, JAMSTEC)

10:20-10:40: Coffee Break

10:40-11:00: *Introduction of a new satellite-derived air-sea flux data set: J-OFURO3*

Hiroyuki Tomita (ISEE, Nagoya U.), S. Kako (Kagoshima U.), T. Hihara (APL, JAMSTEC), M. Kubota (IORD, Tokai U.), K. Kutsuwada (Tokai U.)

Session 5: Atmospheric Response to Ocean (Chair: J. Gan)

11:00-11:20: *Dynamics of the atmospheric boundary layer response to ocean mesoscale sea surface temperatures*

Niklas Schneider (IPRC, U. Hawaii), B. Taguchi (RCAST, U. Tokyo), M. Nonaka (APL, JAMSTEC), A. Kuwano-Yoshida (APL, JAMSTEC), H. Nakamura (RCAST, U. Tokyo)

11:20-11:40: *Response of the early summer (baiu) rain to interannual sea surface temperature variability in the East China Sea*

Yoshi N. Sasaki (Hokkaido U.), Y. Yamada (Hokkaido U.)

11:40-12:00: *Influences of sea surface temperature on a heavy rainfall event over Shimane in late August 2013*

Takafumi Miyasaka (RCAST, U. Tokyo), H. Nakamura (RCAST, U. Tokyo), M. Ishigaki (U. Tokyo)

12:00-12:10 Photo Session

12:10-13:30 Lunch

Session 6: Pacific Ocean (Chair: T. Doi)

13:30-13:50: *Estimating the stochastic component of equatorial Pacific variability*

Ingo Richter (APL, JAMSTEC), Y. Morioka (APL, JAMSTEC), S. Behera (APL, JAMSTEC)

13:50-14:10: *Subsurface warming and salinification associated with the 2013-2015 North Eastern Pacific warm "blob"*

Bunmei Taguchi (RCAST, U. Tokyo), N. Schneider (IPRC, U. Hawaii), M. Nonaka (APL, JAMSTEC), Y. Morioka (APL, JAMSTEC), S. Kido (U. Tokyo), T. Tozuka (U. Tokyo)

14:10-14:30: *Formidable effects of small-amplitude bottom topography on the formation of baroclinic stationary jet in subpolar oceans*

Humio Mitsudera (ILTS, Hokkaido U.), H. Nishikawa (ILTS, Hokkaido U.), T. Miyama (APL, JAMSTEC), H. Nisigaki (Oita U.), T. Nakanowatari (NIPR), T. Nakamura (ILTS, Hokkaido U.), T. Wagawa (FRA, JSNFR), R. Furue (APL, JAMSTEC), Y. Fujii (MRI), S. Itoh (AORI, U. Tokyo)

14:30-15:10 Poster Session and Coffee Break

Session 7: Marginal and Coastal Sea (Chair: T. Ogata)

15:10-15:30: *High-resolution model of Kuroshio influence on the coastal area around Sukumo bay*

Toru Miyama (APL, JAMSTEC), S. Varlamov (APL, JAMSTEC), Y. Morioka (APL, JAMSTEC), Y. Miyazawa (APL, JAMSTEC)

15:30-15:50: *Assessments of circulation and physics in China Seas by China-Sea Multi-Scale Ocean Modeling System (CMOMS) and global circulation models*

Jianping Gan (Hong Kong U. of Science and Technology)

15:50-16:10: *Freshwater balance and the impact of tidal mixing in the Indonesian Seas*

Shinichiro Kida (RIAM, Kyushu U.)

Session 8: Coupled Model (Chair: H. Tomita)

16:10-16:30: *Don't forget the vertical: the need for high vertical resolution in the ocean component of coupled models*

Kelvin Richards (IPRC, U. Hawaii), Y. Jia (IPRC, U. Hawaii), A. Natarov (IPRC, U. Hawaii), E. Firing (U. Hawaii)

16:30-16:50: *Interbasin connection of multiyear climate changes relevant to global warming hiatus*

Takashi Mochizuki (JAMSTEC), M. Watanabe(AORI, U. Tokyo), M. Kimoto(AORI, U. Tokyo)

16:50-17:10: *Origins of biases in the Arabian-Sea climatological state for the CMIP5 models*

Motoki Nagura (JAMSTEC), H. Annamalai (IPRC, U. Hawaii), J.P. McCreary (IPRC, U. Hawaii)

17:10-17:30: *Improved prediction of the Indian Ocean Dipole Mode by use of subsurface ocean observations*

Takeshi Doi (APL, JAMSTEC), A. Storto (CMCC), S. K. Behera (APL, JAMSTEC), T. Yamagata (APL, JAMSTEC)

17:30-17:40 Discussion

17:40 Closing Remark

Poster Session

Towards a seamlessly diagnosable expression for the energy flux associated with both equatorial and mid-latitude waves

Hidenori Aiki (ISEE, Nagoya U., JAMSTEC), R. J. Greatbatch (GEOMAR, U. Kiel), M. Claus (GEOMAR)

On the Leeuwin Current System and its linkage to zonal flows in the South Indian Ocean as inferred from a gridded hydrography

Ryo Furue (APL, JAMSTEC), K. Guerreiro (LEGOS, U. Toulouse, CNES, CNRS, IRD, UPS), H. E. Phillips (U. Tasmania), J. P. McCreary (IPRC, U. Hawaii), N. L. Bindoff (U. Tasmania)

Weakened Indian Summer Monsoon caused by warming and drying of the Maritime Continent

Shih-Ming Huang (National Central U.), L. Oey (National Central U., Princeton U.), A. Liang (National Central U.), S. Chao (National Central U.)

An estimate of internal gravity wave trapping by vortices in the North Pacific using OFES 1/30deg output

Kaoru Ito (ILTS, Hokkaido U.), T. Nakamura (ILTS, Hokkaido U.)

Formation and subduction of North Pacific Eastern Subtropical Mode Water detected by Argo in 2005-2015

Shota Katsura (AORI, U. Tokyo)

Influence of the Gulf Stream on the hemispheric-scale coupled atmosphere-ocean-sea ice system

Nobumasa Komori (APL, JAMSTEC), B. Taguchi (RCAST, U. Tokyo, JAMSTEC), A. Kuwano-Yoshida (APL, JAMSTEC), A. Yamazaki (APL, JAMSTEC), M. Nonaka (APL, JAMSTEC)

Impact of mesoscale eddies on spring bloom initiation in the Japan Sea

Elígio de Raús Maúre (Nagoya U.), J. Ishizaka (ISEE, Nagoya U.), C. Sukigara (Nagoya U.), Y. Mino (ISEE, Nagoya U.), H. Aiki (ISEE, Nagoya U.), T. Matsuno (Kyushu U.)

The characteristics and mechanism of mesoscale variability observed by high-resolution mooring observations

Masatoshi Miyamoto (AORI, U. Tokyo), E. Oka (AORI, U. Tokyo), D. Yanagimoto (AORI, U. Tokyo), S. Fujio (AORI, U. Tokyo), G. Mizuta (Hokkaido U.), M. Nagasawa (AORI, U. Tokyo)

Multiyear climate prediction with initialization based on 4D-Var coupled data assimilation

Takashi Mochizuki (JAMSTEC), S. Masuda (RCGC, JAMSTEC), Y. Ishikawa (CEIST, JAMSTEC), T. Awaji (Kyoto U.)

Across-jet nutrient flux in the south of the Kuroshio Extension region in an eddy-resolving ocean model

Shumpei Nagao (Hokkaido U.), Y. N. Sasaki (Hokkaido U.), Y. Sasai (RCGC, JAMSTEC)

Eddy transport of North Pacific Tropical Water and its impact on the salinity distribution

Takato Nakai (Tohoku U.), T. Suga (Tohoku U., JAMSTEC)

Effect of air-sea coupling on the frequency distribution of intense tropical cyclones over the Northwestern Pacific

Tomomichi Ogata (U. Tsukuba), H. Murakami (GFDL), R. Mizuta (MRI), Y. Adachi (MRI), T. Ose (MRI)

Impact of physiological flexibility of phytoplankton on modeled primary production in the North Pacific Ocean

Yoshikazu Sasai (RCGC, JAMSTEC), S. L. Smith (RCGC, JAMSTEC), H. Sasaki (APL, JAMSTEC)

Production mechanism of submesoscales in the Eastern Subtropical Pacific

Hideharu Sasaki (APL, JAMSTEC), P. Klein (Ifremer), Y. Sasai (RCGC, JAMSTEC), B. Qiu (U. Hawaii)

Continental river discharge for additional dataset of JRA55-do to drive a global ocean circulation model

Tatsuo Suzuki (ICCP, JAMSTEC), D. Yamazaki (JAMSTEC), Y. Komuro (JAMSTEC), H. Tsujino (MRI), H. Nakano (MRI), S. Urakawa (MRI)

Multi-decadal variations of subtropical cells in the Pacific as simulated in OFES

Tsubasa Takigawa (U. Tokyo), Yukio Masumoto (U. Tokyo)

Additional Information

Institute Lecture

March 15 11:00-12:00 Institute Lecture at Nagoya University

Speaker: Dr. Erik van Sebille (Grantham Institute & Department of Physics, Imperial College London)

Title: Our plastic oceans: sources, risks and possible solutions of marine litter

Place: Research Institute Building 1 Room 301 (<http://www.isee.nagoya-u.ac.jp/en/access.html>)