

Miyazawa, Yasumasa

Activities in Japanese

Deputy Director (Group Leader, Environmental Variability Prediction and Application Research Group)

Application Laboratory JAMSTEC

Research Interest:

- The Kuroshio and meso-scale eddies
- Ocean current forecast: Web site
- Numerical ocean modeling and data assimilation

Papers:

Miyazawa, Y., A. Kuwano-Yoshida, T. Doi, H. Nishikawa, T. Narazaki, T. Fukuoka, and K. Sato, 2019: **Temperature profiling measurements by sea turtles improve ocean state estimation in the Kuroshio-Oyashio Confluence region**, *Ocean Dynamics*, 69, 267-282. [html](#)

Miyazawa, Y., S. M. Varlamov, T. Miyama, X. Guo, T. Hihara, K. Kiyomatsu, M. Kachi, Y. Kurihara, and H. Murakami, 2017: **Assimilation of high-resolution sea surface temperature data into an operational nowcast/forecast system around Japan using a multi-scale three dimensional variational scheme**, *Ocean Dynamics*, 67, 713-728. [html](#)

Miyazawa, Y., X. Guo, S. M. Varlamov, T. Miyama, K. Yoda, K. Sato, T. Kano, and K. Sato, 2015: **Assimilation of the seabird and ship drift data in the north-eastern sea of Japan into an operational ocean nowcast/forecast system**, *Scientific Reports*, 5, Article number: 17672. [html](#)

Miyazawa, Y., N. Yamashita, S. Taniyasu, E. Yamazaki, X. Guo, S. M. Varlamov, and T. Miyama, 2014: **Oceanic dispersion simulation of perfluoroalkyl substances in the Western North Pacific associated with the Great East Japan Earthquake of 2011**, *J. Oceanogr.*, 70, 535-547. [html](#)

Miyazawa, Y., H. Murakami, T. Miyama, S. M. Varlamov, X. Guo, T. Waseda, and S. Sil, 2013: **Data assimilation of the high-resolution sea surface temperature obtained from the Aqua-Terra satellites (MODIS-SST) using an ensemble Kalman filter**, Remote Sensing, 5, 3123-3139. [html](#)

Miyazawa, Y., Y. Masumoto, S. M. Varlamov, T. Miyama, M. Takigawa, M. Honda, and T. Saino, 2013: **Inverse estimation of source parameters of oceanic radioactivity dispersion models associated with the Fukushima accident**, Biogeosciences, 10, 2349-2363. [html](#)

Miyazawa, Y., Y. Masumoto, S. M. Varlamov, and T. Miyama, 2012: **Transport simulation of the radionuclide from the shelf to open ocean around Fukushima**, Continental Shelf Res., 50-51, 16-29. [html](#)

Miyazawa, Y., T. Miyama, S. M. Varlamov, X. Guo, and T. Waseda, 2012: **Open and coastal seas interactions south of Japan represented by an ensemble Kalman Filter**, Ocean Dynamics, 62, 645-659. [html](#)

Miyazawa, Y., R. Zhang, X. Guo, H. Tamura, D. Ambe, J.-S. Lee, A. Okuno, H. Yoshinari, T. Setou, and K. Komatsu, 2009: **Water mass variability in the western North Pacific detected in a 15-year eddy resolving ocean reanalysis**, J. Oceanogr., 65, 737-756. [html](#)

Miyazawa, Y., T. Kagimoto, X. Guo, and H. Sakuma, 2008: **The Kuroshio large meander formation in 2004 analyzed by an eddy-resolving ocean forecast system**, J. Geophys. Res., 113, C10015, doi:10.1029/2007JC004226. [html](#)

Miyazawa, Y., S. Yamane, X. Guo, and T. Yamagata, 2005: **Ensemble forecast of the Kuroshio meandering**, J. Geophys. Res., 110, C10026, doi:10.1029/2004JC002426. [html](#)

Miyazawa, Y., X. Guo, and T. Yamagata, 2004: **Roles of meso-scale eddies in the Kuroshio paths**, J. Phys. Oceanogr., 34, 2203-2222. [html](#)

Miyazawa, Y., and S. Minato, 2000: **POM and two-way nesting POM study of Kuroshio damping phenomenon caused by a strong wind**, J. Oceanogr., 56, 275-294. [html](#)

Papers (collaboration):

Chang, Y.-L., Y. Miyazawa, M.J. Miller, and K. Tsukamoto, 2019: **Influence of ocean circulation and the Kuroshio large meander on the 2018 Japanese eel recruitment season**, PLOS ONE, 14: e0223262. [html](#)

Fukao, Y., T. Miyama, Y. Tono, H. Sugioka, A. Ito, H. Shiobara, M. Yamashita, S. M. Varlamov, R. Furue, and Y. Miyazawa, 2019: **Detection of ocean internal tide source oscillations on the slope of Aogashima Island, Japan**, *J. Geophys. Res. Oceans*, 124, 4918-4933. [html](#)

Ishizu, M., Y. Miyazawa, X. Guo, and T. Tshunoda, 2019: **Development of a Biogeochemical and Carbon Model Related to Ocean Acidification Indices with an Operational Ocean Model Product in the North Western Pacific**, *Sustainability*, 11: 2677. [html](#)

Chang, Y.-L., M.J. Miller, K. Tsukamoto, and Y. Miyazawa, 2018: **Effect of larval swimming in the western North Pacific subtropical gyre on the recruitment success of the Japanese eel**, *PLOS ONE*, 13: e0208704. [html](#)

Chang, Y.-L., Y. Miyazawa, T. Kodaira, and S. Behera, 2018: **Philippines-Taiwan Oscillations and its connection to tropical cyclone frequency in the western North Pacific Ocean**, *Scientific Reports*, 8, Article Number: 17454. [html](#)

Chang, Y.-L., Y. Miyazawa, M.J. Miller, and K. Tsukamoto, 2018: **Potential impact of ocean circulation on the declining Japanese eel catches**, *Scientific Reports*, 8, Article Number: 5496. [html](#)

Chang, Y.-L., Y. Miyazawa, M. Beguer-Pon, Y.-S. Han, K. Ohashi, and J. Sheng, 2018: **Physical and biological roles of mesoscale eddies in Japanese eel larvae dispersal in the western North Pacific Ocean**, *Scientific Reports*, 8, Article Number: 5013. [html](#)

Uchiyama, Y., X. Zhang, Y. Suzue, T. Kosako, Y. Miyazawa, and A. Nakayama, 2018: **Residual effects of treated effluent diversion on a seaweed farm in a tidal strait using a multi-nested high-resolution 3D circulation-dispersal model**, *Marine Pollution Bulletin*, 130, 40-54. [html](#)

Kanada S., S. Tsujino, H. Aiki, M. K. Yoshioka, Y. Miyazawa, K. Tsuboki, and, I. Takayabu, 2017: **Impacts of SST Patterns on Rapid Intensification of Typhoon Megi (2010)**, *J. Geophys. Res. Atmosphere*, doi:10.1002/2017JD027252 [html](#)

Uchiyama, Y., R. Kanki, A. Takano, H. Yamazaki, and, Y. Miyazawa, 2017: **Mesoscale reproducibility in regional ocean modelling with a three-dimensional stratification estimate based on Aviso-Argo data**, *Atmosphere-Ocean*, doi:10.1080/07055900.2017.1399858 [html](#)

Josko, T., T. Sayama, S. M. Varlamov, T. Sasaki, M.-F. Racault, K. Takara, Y. Miyazawa, R. Kuroski, T. Yamagata, and Y. Yamashiki, 2017: **Modeling of extreme freshwater outflow from the north-eastern Japanese river basins**

to western Pacific ocean, J. Hydrology, 555, 956-970.
doi:10.1016/j.jhydrol.2017.10.042. [html](#)

Kawamura, H., A. Furuno, T. Kobayashi, T. In, T. Nakayama, Y. Ishikawa, Y. Miyazawa, and N. Usui, 2017: **Oceanic dispersion of Fukushima-derived Cs-137 simulated by multiple oceanic general circulation models**, J. Environ. Rad., 180, doi:10.1016/j.jenvrad.2017.09.020 [html](#)

Chang, Y.-L., Y. Miyazawa, L.-Y. Oey, T. Kodaira, and S. Huang, 2017: **The formation processes of phytoplankton growth and decline in mesoscale eddies in the western North Pacific Ocean**, J. Geophys. Res. Oceans, 122, doi:10.1002/2017JC012722 [html](#)

Zhang, J., X. Guo, L. Zhao, Y. Miyazawa, and Q. Sun, 2017: **Water exchange across isobaths over the continental shelf of the East China Sea**, J. Phys. Oceanogr., 47, 1043-1060. [html](#)

Chang, Y.-L., Y. Miyazawa, and M. Beguer-Pon, 2017: **The dynamical impact of mesoscale eddies on migration of Japanese eel larvae**, PLoS ONE, 12, doi:10.1371/journal.pone.0172501 [html](#)

Hu, Z.-F., D.-P. Wang, D.-L. Pan, X.-Q. He, Y. Miyazawa, Y. Bai, Di-F.- Wang, F. Gong, 2016: **Mapping surface tidal currents and Changjiang plume in the East China Sea from Geostationary Ocean Color Imager**, J. Geophys. Res. Oceans, 121, 1563-1572. [html](#)

Chang, Y.-L., Y. Miyazawa, and M. Beguer-Pon, 2016: **Simulating the oceanic migration of silver Japanese eels**, PLoS ONE, 11, doi:10.1371/journal.pone.0150187 [html](#)

Qu, T., T. Tozuka, S. Kida, X. Guo, Y. Miyazawa, and Q. Liu, 2016: **Western Pacific and marginal sea processes. World Scientific Series on Asia-Pacific Weather and Climate: Climate Variations**, Edited by Yamagata, T., and Behera, S. [html](#)

Chang, Y.-L., J. Sheng, K. Ohashi, M. Beguer-Pon, and Y. Miyazawa, 2015: **Impacts of interannual ocean circulation variability on Japanese eel larval migration in the western north Pacific ocean**, PLoS ONE, 10(12): e0144423. doi:10.1371/journal.pone.0144423 [html](#)

Han, S., N. Hirose, N. Usui, and Y. Miyazawa, 2015: **Ensemble estimation of volume transport through the straits of the East/Japan Sea**, Ocean Dynamics., doi:10.1007/s10236-015-0896-9. [html](#)

Kiyomatsu, K., Y. Kadomoto, T. Kodaira, T. Waseda, K. Takagi, S. Varlamov, and Y. Miyazawa, 2015: **ADCP measurements of ocean currents near Miyake Island for a Kuroshio energy converter development project**, Renewable Energies Offshore, 123.[html](#)

Yamazaki, E., N. Yamashita, S. Taniyasu, Y. Miyazawa, T. Gamo, H. Ge, and K. Kannan, 2015: **Emission, dynamics and transport of Perfluoroalkyl substances from land to ocean by the Great East Japan Earthquake in 2011**, doi:10.1021/acs.est.5b01687. [html](#)

Varlamov, M. Sergey, X. Guo, T. Miyama, K. Ichikawa, T. Waseda, and Y. Miyazawa, 2015: **M2 baroclinic tide variability modulated by the ocean circulation south of Japan**, J. Geophys. Res. doi:10.1002/2015JC010739. [html](#)

Chang, Y.-L., Y. Miyazawa, and X. Guo, 2015b: **Effects of the STCC eddies on the Kuroshio based on the 20-year JCOPE2 reanalysis results**, Progress in Oceanogr., 135, 64-76. [html](#)

Chang, Y.-L., Y. Miyazawa, and X. Guo, 2015a: **Effect of mesoscale eddies on the Taiwan Strait Current**, J. Phys. Oceanogr., 45, 1651-1666. [html](#)

Kodaira, T., T. Waseda, and Y. Miyazawa, 2014: **Nonlinear internal waves generated and trapped upstream of islands in the Kuroshio**, Geophys. Res. Lett. doi:10.1002/2014GL060113 [html](#)

Waseda, T., M. Sinchi, K. Kiyomatsu, T. Nishida, S. Takahashi, S. Asaumi, Y. Kawai, H. Tamura, and Y. Miyazawa, 2014: **Deep water observations of extreme waves with moored and free GPS buoys**, Ocean Dyn., 64, 1269-1280. [html](#)

Soeyanto, E., X. Guo, J. Ono, and Y. Miyazawa, 2014: **Interannual variations of Kuroshio transport in the East China Sea and its relation to Pacific Decadal Oscillation and mesoscale eddy**, J. Geophys. Res. doi:10.1002/2013JC009529 [html](#)

Waseda, T., K. In, K. Kiyomatsu, H. Tamura, Y. Miyazawa, K. Iyama, 2014: **Predicting freakish sea state with an operational third generation wave model**, Natural Hazards and Earth System Sciences, 14, 945-957. [html](#)

Kantha, L., H. Tamura, and Y. Miyazawa, 2014: **Comment on 'Wave-turbulence interaction and its induced mixing in the upper ocean' by Huang and Qiao**, J. Geophys. Res., 10.1002/2013JC009318 (accepted)

Miyama, T., and Y. Miyazawa, 2014: **Short-term fluctuations south of Japan and their relationship with the Kuroshio path: 8- to 36-day fluctuations**, Ocean Dyn., 64, 537-555. [html](#)

Oey, L.-Y., Y.-L. Chang, Y.-C. Lin, M.-C. Chang, S.M. Varlamov, and Y. Miyazawa, 2014: **Cross flows in the Taiwan Strait in winter**, J. Phys. Oceanogr., 44, 801-817. [html](#)

Xu, F.-H., L.-Y. Oey, Y. Miyazawa, and P. Hamilton, 2013: **Hindcasts and Forecasts of Loop Current and Eddies in the Gulf of Mexico using Local Ensemble Transform Kalman Filter and Optimum-Interpolation Assimilation Schemes**, Ocean Modelling, 69, 22-38. [html](#)

Miyama, T., and Y. Miyazawa, 2013: **Structure and dynamics of the sudden acceleration of Kuroshio off Cape Shionomisaki**, Ocean Dyn., 63, 265-281. [html](#)

Tamura, H., Y. Miyazawa, and Lie-Yauw Oey, 2012: **The Stokes drift and wave induced-mass flux in the North Pacific**, J. Geophys. doi:10.1029/2012JC008113 [html](#)

Masumoto, Y., Y. Miyazawa, D. Tsumune, T. Tsubono, T. Kobayashi, H. Kawamura, C. Estournel, P. Marsaleix, L. Lanerolle, A. Mehra, and Z. D. Garraffo, 2012: **Oceanic dispersion simulations of 137Cs released from the Fukushima Daiichi Nuclear Power Plant**, Elements, 8, 207-212. [html](#)

Honda, M. C., T. Aono, M. Aoyama, Y. Hamajima, H. Kawakami, M. Kitamura, Y. Masumoto, Y. Miyazawa, M. Takigawa, and T. Saino, 2012: **Dispersion of artificial caesium-134 and -137 in the western North Pacific one month after the Fukushima accident**, Geochemical Journal, 46, e1-e9. [html](#)

Kartadikaria, A. R., Y. Miyazawa, K. Nadaoka, and A. Watanabe, 2011: **Existence of Eddies at Crossroad of the Indonesian seas**, Ocean Dynamics, DOI:10.1007/s10236-011-0489-1. [html](#)

Kartadikaria, A. R., Y. Miyazawa, S. M. Varlamov, and K. Nadaoka, 2011: **Ocean circulation for the Indonesian seas driven by tides and atmospheric forcings: Comparison to observational data**, J. Geophys. Res. 116, C09009, doi:10.1029/2011JC007196. [html](#)

Sasai, Y., A. R. Kartadikaria, Y. Miyazawa, and K. Nadaoka, 2011: **Marine ecosystem simulation in the Indonesian Seas**, Interdisciplinary Studies on Environmental Chemistry - [Marine Environmental Modeling & Analysis](#), Eds., K. Omori, X. Guo, N. Yoshie, N. Fujii, I. C. Handoh, A. Isobe, and S. Tanabe, pp. 11-17, TERRAPUB. [PDF\(0.3MB\)](#)

Tamura, H., T. Waseda, and Y. Miyazawa, 2010: **Impact of nonlinear energy transfer on the wave field in Pacific hindcast experiments**, J. Geophys. Res., 115, C12036, doi:10.1029/2009JC006014. [html](#)

Lu L.-F., Y. Miyazawa, W. Cui, and K. Nadaoka, 2010: **Numerical study of surface water circulation around Sekisei Lagoon, southwest of Japan**, Ocean Dynamics, 60, 359-375. [html](#)

Tamura, H., T. Waseda, and Y. Miyazawa, 2009: **Freakish sea state and swell-windsea coupling: Numerical study of the Suwa-Marun incident**, Geophys. Res. Lett., 36, L01607, doi:10.1029/2008GL036280. [html](#)

Tamura, H., T. Waseda, Y. Miyazawa, and K. Komatsu, 2008: **Current-induced modulation of the ocean wave spectrum and the role of nonlinear energy transfer**, J. Phys. Oceanogr., 38, 2662-2684. [html](#)

Kagimoto, T., Y. Miyazawa, X. Guo, and H. Kawajiri, 2008: **High resolution Kuroshio forecast system -Description and its applications-**, in High Resolution Numerical Modeling of the Atmosphere and Ocean, W. Ohfuchi and K. Hamilton (eds), Springer, New York, 209-234. [html](#) [PDF\(1.5MB\)](#)

Uchimoto, K., H. Mitsudera, N. Ebuchi, and Y. Miyazawa, 2007: **Anticyclonic eddy caused by the Soya Warm Current in an Okhotsk OGCM**, J. Oceanogr., 63, 379-391. [html](#)

Guo, X., Y. Miyazawa, and T. Yamagata, 2006: **The Kuroshio onshore intrusion along the shelf break of the East China Sea: the origin of the Tsushima Warm Current**, J. Phys. Oceanogr., 36, 2205-2231. [html](#)

Guo, X., H. Hukuda, Y. Miyazawa, and T. Yamagata, 2003: **A triply nested ocean model for simulating the Kuroshio -Roles of horizontal resolution on JEBAR-**. J. Phys. Oceanogr., 33, 146-169. [html](#)

Presentations:

Utilization of various kinds of observation data for ocean state estimation, Feasibility Study Workshop on the CSK-2, 23 January 2019, Yokohama, Japan.

Utilization of satellite observation data for ocean state estimation, Plenary Session, The Joint PI Meeting of JAXA Earth Observation Mission FY2018, 21 January 2019, Tokyo, Japan. (Invited)

Utilizing biologging data for ocean state estimation, 2nd SIMSEA regional symposium, 20 November 2018, Manila, Philippines.

Development of data assimilation techniques toward resolving smaller scale oceanic phenomena, 10th International Workshop Modeling the Ocean(iwmo), 27 June 2018, Santos, Brazil.

Inter-comparison of data assimilation methods including ensemble-based techniques and implications for real applications, JpGU Annual Meeting 2018, MGII22-07, 20 May 2018, Makuhari, Japan. [html](#) (Invited)

Ocean forecasting studies and their applications in Japan Coastal Ocean Predictability Experiment, MoES-JAMSTEC Joint Workshop, 1 March 2018, Pune, India.

Development of data assimilation techniques toward resolving smaller scale oceanic phenomena in Japan Coastal Ocean Predictability Experiment (JCOPE), A guest seminar at Indian National Centre for Ocean Information Services, 27 February 2018, Hyderabad, India.

Ocean forecasting in Japan Coastal Ocean Predictability Experiment, A guest seminar at Naval Research Laboratory, 18 December 2017, Stennis, MS.

Reanalysis/forecast of the North Western Pacific ocean utilizing the AVHRR/ MODIS/ Himawari-8 sea surface temperature data, the 14th annual meeting of Asia Oceania Geosciences Society (AOGS), 9 August 2017, Singapore.

Updating ocean model/data assimilation components of the JCOPE2 operational ocean forecast system for biogeochemical applications, 9th International Workshop Modeling the Ocean(iwmo), 6 July 2017, Seoul, Korea.

Utilization of fisherman-logging data for enhancement of the coastal ocean monitoring network in Japan, JpGU-AGU Joint Meeting 2017, MGI28-05, 22 May 2017, Makuhari, Japan. [html](#)

Extension of the ocean forecasting including investigation of marine ecosystem behavior and coupling with the seasonal climate forecast, Symposium: Past, Present, Future of Predicting Ocean and Climate Variability, 26 January 2017, Tokyo, Japan.

Modeling of acidification in marginal seas, GEOSS Asia-Pacific Symposium WG4: Ocean and society in AP region, 12 January 2017, Tokyo, Japan.

Sustainable ocean environment monitoring scheme enhanced by ocean forecasting, 7th ISAJ Symposium 2016 - India Japan Symposium on Science and Technology for Sustainability, 15 December 2016, Tokyo, Japan.

Bio-logging and ocean forecasting around Philippines, SIMSEA Regional Symposium, 26 September 2016, Quezon City, Philippines.

An Expectation for SIMSEA -Toward Philippine seas prediction-, Workshop to Support SIMSEA Japan, 5 February 2016, Tokyo, Japan.

A long-term tide-resolving OGCM simulation around the Japan coastal ocean , The 7th International Workshop on Modeling the Ocean (IWMO2015), 5 June 2015, Canberra, Australia.

Validation of a long-term tide-resolving oceanic simulation around the coastal areas, Japan, Japan Geoscience Union Meeting 2015, 27 May 2015, Chiba, Japan.

Toward interactive observation-forecast feedback systems in coastal oceans, Eighteenth Session of the Ocean Observations panel for Physics and Climate, Future Prospects of Coastal Ocean Observations and Modeling in Japan, 17 April 2015, Sendai, Japan.

Oceanic dispersion of anomalous perfluoroalkyl substances in the Western North Pacific from the Japanese Coast associated with the Great Earthquake 0311 in Japan, 6th International Workshop on Modeling the Ocean, 26 June 2014, Halifax, Canada.

A spike-like input of perfluoroalkyl substances into the Western North Pacific from the Japanese Coast associated with the Great Earthquake 0311 in Japan, Japan Geoscience Union Meeting 2014, 30 April 2014, Yokohama, Japan.

Dispersion of materials in ocean: observation and modeling, Conference on Diffusion in Heterogeneous Media and Related Topics, 07 March 2014, Tokyo, Japan. (Invited)

M2 internal tide variability modulated by ocean circulation processes south of Japan, 2014 Ocean Sciences Meeting, 25 February 2014, Honolulu, USA.

Data assimilation of the high-resolution sea surface temperature obtained from the Aqua-Terra satellites (MODIS-SST) using an ensemble Kalman filter, Second International Symposium on Watercourse Sensing and Operational Monitoring, 27 November 2013, Kyoto, Japan. (Invited)

Internal tide variability south of Japan: modeling and observation , International Workshop on Ocean Waves and Related Processes, 26 July 2013, Yokohama, Japan.

Internal tide variability south of Japan: modeling and observation , 5th International Workshop on Modeling the Ocean, 19 June 2013, Bergen, Norway.

Internal tide variability around Japan revealed by modeling and observation , Japan Geoscience Union Meeting 2013, 19 May 2013, Chiba, Japan.

Downscaled ocean modeling based on coupling among ocean circulation, tides, and surface waves, IPRC Discussion, 20 March 2013, Honolulu, USA.

Applications of an ensemble Kalman Filter to regional ocean modeling associated with the western boundary currents variations, AICS International Workshop on Data Assimilation, 26-27 February 2013, Kobe, Japan.

Data assimilation of the high-resolution sea surface temperature obtained from the Aqua-Terra satellites (MODIS-SST) using an ensemble Kalman Filter, 2nd GODAE OceanView Coastal Oceans and Shelf Seas Task Team (COSS-TT) International Coordination Workshop (COSS-ICW2), 4-7 February 2013, Lecce, Italy.

Ocean data assimilation and operational ocean forecasting systems in Japan, International Symposium on Watercourse Sensing and Operational Monitoring, 9-10 July 2012, Otsu, Japan. (Invited)

Transport simulations of Cs137 from the shelf to open ocean around Fukushima, Japan Geoscience Union Meeting 2012, 25 May 2012, Makuhari, Japan.

Transport simulation of the radionuclides from the shelf to open ocean around Fukushima -Inverse estimation of source parameters-, 2012 Ocean Sciences Meeting, 20-24 February 2012, Salt Lake City.

Transport simulation of the radionuclides from the shelf to open ocean around Fukushima, Fukushima Radionuclide Workshop, 16-17 February 2012, Salt Lake City, USA. (Invited)

Inverse estimation of source and diffusion parameters of oceanic radioactivity dispersion models associated with the Fukushima accident, GODAE OceanView International Workshop of the Coastal and Shelf Seas Task Team, 10-12 January 2012, Miami, USA.

Transport simulation of the radionuclides from the shelf to open ocean around Fukushima, Benchmarking models for the ocean dispersion and transfer of radionuclide release from TEPCO Fukushima Nuclear Power Plant, 3-5 October 2011, Monaco. (Invited)

The Kuroshio variation south of Japan detected by the Ensemble Kalman Filter, 3rd International Workshop on Modeling the Ocean, 8 June 2011, Qingdao, China.

Application of the ensemble Kalman Filter to the Kuroshio variation south of Japan, 16th Pacific Asian Marginal Seas (PAMS) Meeting, 21 April 2011, Taipei, Taiwan. (Invited) Extended abstract [PDF\(0.5MB\)](#)

Development of the Ensemble Kalman Filter for the analysis and prediction of the Kuroshio variations south of Japan, 2010 AGU Fall Meeting, 18 December 2010, San Francisco, USA. (Invited)

Application of the Ensemble Kalman Filter to the Kuroshio variations around the Kii Peninsula, PICES 19th annual meeting, 28 October 2010, Portland, USA.

Japan Coastal Ocean Predictability Experiment (JCOPE) -Comprehensive applications of numerical ocean forecasting-, A seminar at Korea Ocean Research and Development Institute (KORDI), 29 July 2010, Ansan, Korea. (Invited)

The Kuroshio frontal waves detected in the FRA-JCOPE2 reanalysis data, Workshop on Ocean Modeling in the Regional Marine Systems, 15 July 2010, Kashiwa, Japan. (Invited)

Roles of the in-situ observations in the detection of the Kuroshio frontal variability south of Japan, 2nd International Workshop on Modeling the Ocean, 25 May 2010, Norfolk, USA.

Japan Coastal Ocean Predictability Experiment: the Development of Parallel Ensemble Kalman Filter using the parallelized Princeton Ocean Model, GFDL Lunch-Time Seminar, 21 May 2010, Princeton, USA. (Invited)

Roles of the in-situ observations in the detection of the Kuroshio frontal variability south of Japan, Climate Change Effects on Fish and Fisheries: Forecasting impacts, Assessing Ecosystem Responses, and Evaluating Management Strategies, 28 April 2010, Sendai, Japan.

Water mass variability detected in a 17-year eddy resolving ocean reanalysis : roles of the in-situ data, 2010 Ocean Sciences meeting, 24 February 2010, Portland, USA.

Roles of in-situ profile data obtained by Japanese fishery research agencies in quality of the eddy-resolving ocean reanalysis data: FRA-JCOPE2, PICES 18th annual meeting, 29 October 2009, Jeju, Korea.

Interannual variation of the Changjiang Diluted Water found in the JCOPE2 15-year ocean reanalysis, Seminar at College of Ocean Science, Cheju National University , 27 October 2009, Jeju, Korea. (Invited)

Japan Coastal Ocean Predictability Experiment -Comprehensive Operational applications of POM- , 2009 Workshop on Modeling the Ocean, 23-26 February 2009, Taipei, Taiwan. (Invited)

Water mass variabilities in the western North Pacific detected in a 15-year eddy-resolving ocean reanalysis, Final GODAE symposium, 11-15 November 2008, Nice, France.

Toward the data-assimilation system of marginal seas in the SEA-WP region, PICES 17th annual meeting, 30 October 2008, Dalian, China.

Operational Kuroshio forecast and ocean floor observation systems around the Nankai trough, International Workshop: What can be done with seafloor observation networks?, 10 March 2008, Tokyo, Japan. (Invited)

Meso-scale variations reproduced by the JCOPE2 reanalysis, 2008 Ocean Sciences Meeting, 3 March 2008, Orlando, USA.

POM applications in JCOPE, POM meeting in 2008 Ocean Sciences Meeting, 3 March 2008, Orlando, USA. (Invited)

Water mass structure in the Kuroshio-Oyashio mixed water region reproduced by JCOPE2, PICES 16th Annual Meeting, 2 November 2007, Victoria, Canada.

Intensive evaluations of the JCOPE ocean forecast systems using a regional metrics, 2007 GODAE Coastal Workshop 'Assessing the value of GODAE products in coastal and shelf seas', 11 October 2007, Liverpool, UK.

Prediction of the Kuroshio meandering using JCOPE, Joint Meeting of CVRP/FRCGC/JAMSTEC, MIRI and Italian National Group for Operational Oceanography (GNOO), 11 December 2006, Bologna, Italy.

Japan Coastal Ocean Predictability Experiment: Comprehensive Application of Ocean Forecasting, GODAE Symposium on ocean data assimilation and prediction in Asia-Oceania, 16-18 October 2006, Beijing, China. [PDF\(0.5MB\)](#)

Kuroshio large meander formation in 2004 analyzed by an eddy-resolving ocean forecast system, Western Pacific Geophysics Meeting, OS04, 24-27 July, 2006, Beijing, China.

Eddy-Kuroshio interactions associated with the Large Meander formation in 2004, Ocean Science Meeting, OS26N-11, February 21, 2006, Honolulu, USA.

Eddy-Kuroshio interactions associated with the Large-Meander formation in 2004, Second forum on Marine Science - New development and challenge, June 14-16, 2005, Qingdao, China.

Eddy-Kuroshio interactions associated with the Large-Meander formation in 2004, International Workshop on the Indian Ocean Variability and the Asia Monsoon Climate, June 13, 2005, Nanjing, China. (Invited)

Modeling of the Northwest Pacific subarctic gyre system and the Sea of Okhotsk by using the JCOPE OGCM, Workshop on modeling of sea-ice and ocean circulation, with an emphasis on the Sea of Okhotsk, February 18, 2005, Sapporo, Japan. (Invited)

The JCOPE ocean forecast system: First ARGO Science Workshop, November 12-14, 2003, Tokyo, Japan. [PDF\(0.5MB\)](#)

An experimental ocean nowcast/forecast system using multi-data: Symposium on space platforms for water and climate observation, March 14, 2003, Awajishima, Japan.

Japan Coastal Ocean Predictability Experiment -Real time forecast system- [abstract](#), a special session "ocean forecasting" in International Symposium "TECHNO-OCEAN 2002", November 21, 2002, Kobe, Japan.

Japan Coastal Ocean Predictability Experiment (JCOPE)
-Hindcast/Forecast System- [abstract](#), The 26th SCOR International Symposium, Session 'Ocean State Estimation and Forecasting', October 3, 2002, Sapporo, Japan

Nesting Ocean Model for Parallel Vector Processors, 2001 Terrain-Following Coordinates Ocean Models Users' Workshop, August 20-22, 2001, Boulder, Colorado, USA.

Prediction of the Kuroshio path variability by assimilating surface data into POM: practical approach and further development, International Workshop on GODAE with Focus on the Pacific, July 23-25, 2001, Honolulu, Hawaii, USA.

Eddy resolving Kuroshio simulation: eddy behavior in the Kuroshio region, the 11th PAMS/JECSS Workshop, April 11-13, 2001, Cheju, Korea.

Kuroshio damping phenomenon caused by a strong wind simulated using a two-way nesting POM, International Conference, Coastal and Ocean Modelling, November, 1998, Valletta, Malta.

Documents:

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Professional Activities:

Associate editor for Journal of Geophysical Research Oceans, 1 January 2015 - 31 December 2018.

International Scientific committee for 7th International Workshop on Modeling the Ocean (IWMO2015), Canberra, Australia, 1-5 June 2015.

Co-editor for Topical Collection 6th International Workshop on Modeling the Ocean (IWMO2014) of Ocean Dynamics

International Scientific committee for 6th International Workshop on Modeling the Ocean (IWMO2014), Halifax, Canada, 24-27 Jun. 2014.

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International Scientific committee for 5th International Workshop on Modeling the Ocean (IWMO2013), Bergen, Norway, 17-20 Jun. 2013.

Co-editor for Topical Collection 4th International Workshop on Modeling the Ocean (IWMO2012) of Ocean Dynamics

Local Steering Committee for 4th International Workshop on Modeling the Ocean (IWMO2012), Yokohama, Japan, 21-24 May 2012.

A lecturer of Training course on ocean models, UNESCO/IOC Regional Training and Research Center on Ocean Dynamics and Climate, Qingdao, China, 10-16 Jun. 2011. [html](#)

International Scientific committee for 3rd International Workshop on Modeling the Ocean (IWMO2011), Qingdao, China, 6-9 Jun. 2011.

Committee of Ph.D. defense for Dr. Yu-Lin Chang, National Taiwan Normal University, Taipei, Taiwan, 3 Jun. 2011.

Co-editor for special issues of Ocean Dynamics: Part I [html](#), Part II [html](#), [First International Workshop on Modeling the Ocean](#), Taipei, Feb. 2009.

Associate Professor (Cooperative graduate school program), Department of Mechanical and Environmental Informatics, Graduate School of Information Science and Engineering, Tokyo Institute of Technology, Oct. 2007 - Mar. 2009.

Reviewer for AOSL letters, Atmosphere-Ocean, Asia-Pacific Journal of Atmospheric Sciences, Chinese Journal of Oceanology and Limnology, Deep Sea Research, Geophysical Research Letters, Environmental Science & Technology, Hydrological Research Letters, Journal of Atmospheric and Oceanic Technology, Journal of Climate, Journal of Environmental Radioactivity, Journal of Geophysical Research, Journal of Oceanography, Journal of Physical Oceanography, Ocean Engineering, Ocean Dynamics, Ocean Modelling, Ocean Science Journal, and Scientific Reports.

Reviewer for research funding proposals: The Netherlands Organisation for Scientific Research (NWO), Dynamics of Complex Systems

Award:

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