

# The 6<sup>th</sup> Program of the East Asian Cooperative Experiments (PEACE) Ocean Science Workshop and the 9<sup>th</sup> Korea-Japan Workshop on Ocean Color (KJWOC)

November 28-30, 2012



Lecture Hall, Graduate School of Environmental Studies, Nagoya University

Organized by

**Hydrospheric Atmospheric Research Center (HyARC),  
Nagoya University**

Co-organized by

Faculty of Fisheries Sciences, Hokkaido University

School of Engineering, Tokai University

Research Institute for Applied Mechanics (RIAM), Kyushu University

Korea Institute of Ocean Science and Technology (KIOST)



## **The Joint Workshop of 6th Program of the East Asian Cooperative Experiments (PEACE) Ocean Science Workshop and 9th Korea Japan Workshop on Ocean Color (KJWOC) Program**

**Nov. 28, 2012**

10:00-10:20      Opening    Ishizaka J. Matsuno T.

Sea of Japan (Morimoto A.)

10:20-10:40      Ventilation of the Japan Sea Bottom Water  
Lobanov V.B., Ponomarev V., Salyuk A., Sergeev A., Tishchenko P.,  
Kaplunenko D., Sagalaev S., Voronin A.

10:40-11:00      Lee J.H., Hong C.S., Kim Y.-B.  
Characteristics of deep currents in the southwestern East/Japan Sea

11:00-11:20      Senjyu T., Aramaki T., Isoda Y., Tanaka S.  
Variability of the benthic front between the Japan and Yamato Basins  
in the Japan Sea

11:20-11:40      Son Y.-T., Chang K.-I., Park J.-H., Rho T.K.  
Time variation of chlorophyll a fluorescence from buoy station  
(ESROB) off the east coast of Korea (East/Japan Sea)

Discussion and Lunch

Various Areas (Park Y.J.)

13:30-13:50      Kim K., Park Y.-J., Moon I.-J.  
Another look of the time series of satellite-derived Chlorophyll in the  
Northwestern Pacific

13:50-14:10      Siswanto E., Tanaka K., Ab. Lah N.Z.  
Spatial and temporal variations of biological production in the  
Malacca Straits

14:10-14:30      Kobayashi H., Higa H., Koibuchi Y., Toratani M., Sakuno Y.,  
Hirawake T., Jintasaeranee P., Buranapratheprat A., Gunbua V.  
Backward-scattering coefficient measured in various coastal waters

14:30-14:50      Zhang X., Saitoh S., Hirawake T., Kamei Y., Kobayashi N.  
Forecasting potential fishing zone of Japanese common squid in  
coastal waters of southwestern Hokkaido, Japan

14:50-15:10 Yara Y., Fujii M., Yamano H., Yamanaka Y.  
Projected effects of global warming on coral reefs in seas close to Japan

#### Discussion and Break

#### East China Sea 1 (Hirawake T.)

- 16:00-16:20 Lee Y., Choi J.K., Yoon S.  
Seasonal dynamics of picophytoplankton abundance and biomass in different water masses in the northern East China Sea
- 16:20-16:40 Son Y.B., Park Y.G., Choi B.-J., Kim Y.H., Ryu J.-H., Kim S.H.  
Tracing floating green algae in the Yellow Sea and East China Sea using GOCI satellite data and Lagrangian transport analysis
- 16:40-17:00 Xu Y., Yamaguchi H., Siswanto E., Wang S., Ishizaka J.  
Relationships of interannual variability in SST and phytoplankton blooms to giant jellyfish (*Nemopilema nomurai*) outbreaks in the Yellow and East China Seas
- 17:00-17:20 Wang S., Ishizaka J., Watanabe Y., Hayashi M., Xu Y.  
Variability of phytoplankton absorption in the Tsushima Strait and East China Sea influenced by size structure
- 17:20-17:40 Xu Q., Ishizaka J., Wang S., Horiuchi T., Senga Y.  
Multiple excitation fluorescence method for phytoplankton group detection in the East China Sea and Tsushima Strait

**Nov.29, 2012**

East China Sea 2 (Lee J.H.)

- 9:00-9:20 Yanao S., Matsuno T.  
Outer shelf water in the East China Sea
- 9:20-9:40 Ichikawa K., Yang W.C., Morimoto A., Yoshikawa Y., Sugitani S., Chiang W.-S., Lai J.-W., Liu C.-T., Lee C.-W., Yufu K., Kyushima M., Fujii S., Senju T., Ide Y.  
Preliminary results of the Japan-Taiwan joint survey on combining ocean radar data in the Kuroshio upstream region
- 9:40-10:00 Soeyanto E., Guo X, Ono J., Miyazawa Y.  
Interannual variability in the sea level and Kuroshio transport in the East China Sea detected by a data assimilation ocean model
- 10:00-10:20 Chen H.-W., Liu C.-T., Tsai W.-T., Matsuno T., Ichikawa K., Fukudome K., Yang Y.  
Current status and future plan on monitoring the volume transport between Taiwan Strait and East China Sea

Break

East China Sea 3 (Kim H.C.)

- 10:40-11:00 Takikawa T., Ogihara T., Neriai C., Morimoto A.  
Internal tidal waves of bottom cold water in western channel of the Tsushima Straits
- 11:00-11:20 Chung H.-W., Liu C.-C., Chiu Y.-S.  
Spatiotemporal variation of Gao-Ping River plume observed by Formosat-2.
- 11:20-11:40 Zhang J.  
Possible origins of nutrients in the bottom water on the outer shelf of East China Sea
- 11:40-12:00 Umezawa Y., Yamaguchi A., Nozaki R., Ishizaka J., Hasegawa T., Nishiuchi K., Yoshimizu C., Tayasu I., Yamawaki N., Morii Y., Yoshimura H.  
Seasonal shift of the contribution of Changjiang River and Kuroshio water to nutrient dynamics at continental shelf of East China Sea

Lunch

#### East China Sea 4 (Ishizaka J.)

- 13:30-13:50 Lee K., Matsuno T., Endoh T., Ishizaka J.  
Vertical mixing around subsurface chlorophyll maximum in the East China Sea
- 13:50-14:10 Sukigara C., Mino Y., Tripathy S.C., Ishizaka J., Matsuno T.  
Sinking processes of particulate matters in the center of the East China Sea

#### Discussion and Break

#### Satellite Estimation of Phytoplankton Functional Type (Son Y.B.)

- 15:00-15:20 Kobayashi T., Isada T., Hirawake T., Imai I., Suzuki K., Saitoh S.  
Identification of phytoplankton groups by using optical properties in Funka Bay, southwestern Hokkaido, Japan
- 15:40-16:00 Hirata T., Hardman-Mountford N., Brewin R., Bracher A., Clementson L., Barlow R., Hirawake T., Kostadinov T., Mouw C., Alvain S., Bricaud A., Ciotti A., Uitz J., Roy S., Murakami H., Hashioka T., Aita-Noguchi M., Yamanaka Y., LeQuéré C., Doney S., Nakano H., Gregg W., Rousseaux C., Donne J.  
Phytoplankton functional types in the global ocean
- 16:00-16:20 Arakawa Y., Hirawake T., Suzuki K., Fujiwara A., Saitoh S.  
Discrimination of phytoplankton size classes in the global ocean

#### Discussion, Poster Session and Party

**Nov. 30, 2012**

Primary Production (Siswanto E.)

- 9:00-9:20 Yoon J., Park J., Yoo S.  
Comparison of primary production algorithms for Korean waters
- 9:20-9:40 Hirawake T., Shinmyo K., Fujiwara A., Saitoh S.  
Satellite remote sensing of primary productivity in the Bering and Chukchi Seas using an absorption-based approach
- 9:40-10:00 Salyuk P.A., Bukin O.A., Pavlov A.N., Alexanin A.I.  
Biooptical under-satellite measurements in Russian waters

Break

GOCI Status (Murakami H.)

- 10:20-10:40 Ahn Y.-H., Cho S., Han H.-J., Park Y.-J., Ryu J.-H.  
Present (Oct. 2012) status of Geostationary Ocean Color Imager
- 10:40-11:00 Ahn K.-B., Oh E., Cho S., Park Y.-J., Ryu J.-H.  
Laboratory Calibration Scheme of In-Situ spectroradiometers for the vicarious calibration of GOCI
- 11:00-11:20 Han H.-J., Ryu J.-M., Lee S.-J., Park Y.-J., Ryu J.-H.  
Improvement of GOCI Data Processing System(GDPS)
- 11:20-11:40 Kim H.-C.  
Validation GOCI with ARAON's continuous measuring HSAS

Discussion, Poster Session and Lunch

Turbidity and Atmospheric Correction (Ahn Y.H.)

- 13:30-13:50 Choi J.-K., Lee B.R. Park Y.J.  
Monitoring coastal water turbidity using GOCI
- 13:50-14:10 Toratani M. Fukushima H.  
Comparison turbidity with TSM concentration from GOCI
- 14:10-14:30 Lee B.R., Park Y.-J., Ahn J.H.  
Development of atmospheric correction for extremely turbid waters in the GOCI coverage using modified MUMM atmospheric correction algorithm

14:30-14:50 Fukushima H., Iwahori K., Toratani M.  
Spectral test for cloud-edge pixels in satellite ocean color imagery:  
Application to GOCI data

#### Break

#### Future Ocean Color Missions (Fukushima H.)

15:40-16:00 Murakami H.  
Preparation for GCOM-C1 ocean color products

16:00-16:20 Park Y.-J., Cho S., Ahn K.-B., Oh E., Ahn Y.-H., Ryu J.-H.  
Development of next generation geostationary ocean color imager,  
GOCI-II

#### Discussion and Closing

#### Poster

- 1 Wang G., Cao W., Wang G.  
Using ocean color remote sensing algorithms to estimate the distribution of  
phytoplankton size classes in northern South China Sea
- 2 Jiang K., Zhang J.  
The relationship between nutrients in pore water and low dissolved oxygen  
concentration in bottom water in the East China Sea
- 3 Fujishiro Y., Zhang J., Matsuno T., Ishizaka J.  
An assesment of dissolved oxygen concentration in the East China Sea