

Wednesday, October 10

Poster Session 3

16:00–18:00

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## Poster 155

### MAIN REASONS OF ERRORS IN SATELLITE DERIVED PRIMARY PRODUCTION MODELS: CASE STUDY OF THE WESTERN PART OF THE JAPAN/EAST SEA

Application of satellite derived models of primary production using ocean colour remote sensing data opens new possibilities of estimation of its time and spatial variability at different scales. However, it is always necessary to take into account that errors of model retrieval can affect wrong interpretation of this variability. In the study we analyzed errors of satellite derived primary production models and explain main reasons of its appearance for a case study of the western part of the Japan/East Sea (35–44°N, 130–137°E). As satellite derived primary production we used data of Vertical Generalized Production Model (VGPM) from Ocean Productivity database. Due to insufficient amount of in situ primary production data in the western part of the Japan/East Sea, satellite derived primary production was compared with modeled assessments, which were got using ship data of model input parameters (chlorophyll-a at different depths, assimilation number, euphotic depth etc). Applied analysis showed three reasons of errors of satellite derived primary production models: (1) accuracy of remote sensing chlorophyll-a, (2) oceanographic conditions - water stratification and (3) accuracy of assimilation number determination.

**Polina Lobanova**, Saint Petersburg State University, pl19@mail.ru, <https://orcid.org/0000-0001-8915-8039>

Vladimir Zvalinski, Pacific Oceanological Institute (Far Eastern Branch Russian Academy of Science), biomar@mail.ru