**SPATIAL AND TEMPORAL VARIABILITY OF COCCOLITHOPHORE BLOOMS**

**IN THE BARENTS SEA FROM SATELLITE OCEAN COLOR DATA**

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The results of our previous studies of coccolithophore blooms in the Barents Sea based on SeaWiFS and MODIS-Aqua satellite data 1998-2012 are available at site <http://optics.ocean.ru>. They include the mean monthly distributions of coccolithophore concentration *N*coc in July-September, derived by a regional algorithm which was developed by using directly measured data on coccolithophore and coccolith concentrations from the ship cruises of 2004 and 2009 and the optical characteristics of coccolithophore ([Voss et al. 1998)](http://optics.ocean.ru/styled-23/index.html).

In the current presentation, some new results are presented including data of 2013 and 2014. The next topics are considered:

* difference between the spectral remote sensing reflectance in the areas of coccolithophore blooms and beyond them;
* an improved regional algorithm to derive concentration of coccolithophoride cells; comparison with the standard PIC algorithm;
* duration of the bloom cycles and its variability;
* spatial structure of the blooms;
* analysis of the role of different climatic factors (the sea surface temperature SST, the surface photosynthetically available radiation PAR and the surface wind speed W) in inter-annual variability of the coccolithophore blooms;

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