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To Whom It May Concern:

Review of Ph.D Thesis "SATELLITE DERIVED ALGORITHMS OF PRIMARY PRODUCTION ASSESSMENT IN WATERS WITH VARIOUS OCEANOGRAPHIC CONDITIONS: CASE STUDIES OF THE NORTHEAST ATLANTIC AND THE JAPAN/EAST SEA" by Polina Vyacheslavovna Lobanova

Ms. Polina Lobanova successfully put together the information about estimation of primary production of the ocean by satellite remote sensing and discuss the accuracy with verification in northeast Atlantic and Japan Sea. This is timely and important subject for oceanographic study. The text is fairly well written, and the research is also conducted well focused and property manner. I have two relatively larger comments: 1) She introduced photoinhibition terms for some cases; however, I did not understand well how she choose whether photoinhibition term was included or not. 2) Although the thesis discussed well about the issue related primary production estimation, I found there is little description and discussion about influence of phytoplankton group difference, which is one of most important and hot topics. I hope the discussion about the phytoplankton group is better to be added somehow. I also feel it will be nicer if clearer future study directions is addressed in the conclusion section.

Followings are some minor comments, and I may add more later:

Page 211: 6th line from the bottom "especially in dynamically active zones and offshore areas that in turn affects the results of PP retrieval" - very clear

Page 212: 10st line "including of accurate" - Delete "of"

16th line "main objectives are solved" – "solved"?

Scientific novelty 1. "MERIS Aqua" – Delete "Aqua"

Page 223: Bottom – I think it is not common to use "subsurface layer" for the layer of the first optical depth. I think it should be surface layer.

Page 226: 11th line: fix "e"

Page 227: 6th line from the bottom: "a little bit" – rephrase

Page 231: 11th line: differ from output in chemical reactions?

2018-05-29 am 30.05.2018

Some references use “A and B (XXXX)” and some use “A, B (XXXX)”.

Page 233: 1.4 1st Delete the first line.

The mail are:.... It seems like just list of something but not very clear.

Page 236: 3st line from the bottom: shade-requiring and sun-requiring: Better words?

Page 247: 1th line: I think short and long incubation of 14C is believed to close to be GPP and NPP, respectively.

Page 249: 2nd line from the bottom: Order of figure?

Page 251: 3d line from the bottom: “:”?

2d line from the bottom: “;”??

Page 257: Figure 1.7 should be Figure 1.8?

Page 258: after (1.14), “where” should be from the top after equation. (There are more.)

10th line from the bottom: “often resorted to”?

Page 261: 10th line from the bottom: (1992) ? Sathyendranath

Page 272: last line: subsurface layer?

Page 275-276: where after equations

Page 277: 3rd line: CDOM is not suspended. Others included sediment?

Page 280: 4th line; “modeled using model?”

14th line: modes can be called satellite derived models of PP?

Page 282: 9th line: I do not think only PSM is semi-empirical.

16th line: Does this “model” mean “province”?

Page 288: Is the x-axis relative to what?

Yours sincerely,



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