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Hydrology and Earth System Sciences Discussions

Interactive comment on "Deriving inherent optical properties and associated uncertainties for the Dutch inland waters during the Eagle Campaign" *by* M. S. Salama et al.

Anonymous Referee #2

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General comments:

From the view of applied GSM method, the paper "Deriving inherent optical properties and associated uncertainties for the Dutch inland waters during the Eagle Campaign" is meaningful for the study of regional inland waters. However, I do not think that the IOCCG datasets from other regions are convinced for the validation of the GSM algorithm you modified to adapt your case. I think that the in situ data can be reliable for the validation. So, I suggest the paper should do a revision or supply data collected in the Dutch inland waters.

Specific comments:

For the section 2 method, could you explain why you use the MERIS level-1b TOA radiance products and do not directly use MERIS level-2 water-leaving radiance reflectance products, or water-leaving reflectance from MERIS level-1b by using the MERIS Case-2 waters plug-in processor?

Could you clarify where the GSM model was modified, which parameter? Which variable? In Fig.2, 8 samples of in situ data, by compared with 500 samples of IOCCG datasets, are small events of probability space. That means the 8 samples basically did not affect on the regression (n=508). However, for the algorithm validation, the 8 samples of in situ measurements can be valid, but, IOCCG data from other regions would be uncertain although sometimes consistent.

P2081, line 7: . . ."synthesized plus measured", what dose that mean?

P2081, line 10: . . ."model II regression". . ., could you explain what the model II is?

Interactive comment on Hydrol. Earth Syst. Sci. Discuss., 6, 2075, 2009.