

Interactive comment on “Steady-state solutions for subsurface chlorophyll maximum in stratified water columns with a bell-shape vertical profile of chlorophyll” by X. Gong et al.

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Dear all: I see that the possibility (or not) to retrieve the vertical distribution of a water constituent has been mentioned in this paper and its following discussion. If I understand it well, the author finds analytical expressions relating the gaussian parameters. He suggests the link to the remotely-sensed chl_a. Posteriorly, E. Boss replies that such goal is far from being achieved (in practice?) In a recently published paper, we show that the remote sensing reflectance is sensitive to the gaussian parameters in a way that the latter can be retrieved when the former is measured. It is a model study where we set the theoretical basis. I think it can add some light to this discussion:

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Jaime Pitarch, Daniel Odermatt, Marcin Kawka, and Alfred Wüest, "Retrieval of vertical particle concentration profiles by optical remote sensing: a model study," *Opt. Express* 22, A947-A959 (2014) <http://www.opticsinfobase.org/oe/abstract.cfm?URI=oe-22-S3-A947>

Best regards, Jaime.

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