**Drinking Water
Engineering and Science
Discussions**

Interactive comment on "A new model for the simplification of particle counting data" *by* M. F. Fadal et al.

Anonymous Referee #1

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The paper entitled "A new model for the simplification of particle counting data" addresses a relevant scientific topic. An improvement to the variable β model is proposed, which can indeed contribute to a fairest modeling of particle counting data. The theme and the available data set show promise but the structure, methodology, discussion and conclusions of the paper are poor.

The paper doesn't have a clear structure and does not refer fundamental contents, such as working hypothesis and unbiased conclusions. According to the authors, the paper is written to "demonstrate the benefits of the Ceronio model", therefore a working hypothesis is lacking and the conclusions seem bias. The structure of the paper does not follow the usual sections: introduction, methodology, discussion, conclusions. The paper is organized as an interesting lecture but not as a scientific paper. Rele-

vant information about the methodology is lacking, such as performance and layout of water treatment plants, exact location of the particle counters. The elaboration of the data, in particular data exclusion and data replacement, were performed based on mathematical reasons and without the necessary water quality justification. The results are presented by too many graphs, 12, insufficiently discussed. In 8 of the presented graphs, cumulative distributions with relative numbers are shown, which should be avoided when representing particle counting data. The results are lacking discussion and the number of references is too limited.

Interactive comment on Drink. Water Eng. Sci. Discuss., 4, 151, 2011.