

Interactive comment on “Can terminal settling velocity and drag of natural particles in water ever be predicted accurately?” by Onno J. I. Kramer et al.

Anonymous Referee #1

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This paper is a very detailed discussion of the spread of 3,629 terminal settling experiments and of related literature data. Scientific sustained arguments leads to the conclusion that new advanced research is needed to improve the prediction accuracy for settling velocity, drag coefficient and terminal Reynolds number of non-spherical particles such as drinking water related particles. The quality of the paper has to be upgraded by the following minor revisions: - Line 87: according to... Replace Newton by Clift . - Line 116: add: Nian-Sheng Cheng 1997 Terfous et al. 2013. Goossens 2020. - Line 190-191: „standard drag curve,, ADD (Lapple-Shepherd 1940) - Line 290: this definition of the Galileo number has to be repeated in the list of symbols . comment: this definition is peculiar as in a standard way the square root is omitted. -

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Line 325: replace “estimated” by “experimental”. - List of symbols: are not used in the paper and have to be removed of the list: A,b,c, Ar As ct di dp dsi Eh50 E1.50 Ew50 Fb Fd Fg Fp k Symm UC x Greek: likewise. - List of symbols: Are to be defined: Cd =definition of eq. (4) Cd' _ Cd dp is volume-equivalent particle diameter Ga = definition of eq. (5) Ret = definition of eq. (2) - References : ADD: Nian-Sheng Cheng, J. Hydraulic Eng. February 1997,149-152 Walter R.A. Goossens, Powder Technology 362 (2020) 54-56. C. E. Lapple and C. B. Shepherd, Ind. Eng. Chem. 32(5) (1940) 605-617. A. Terfous, A. Hazzab, A. Ghenaïm, Powder Technol. 239 (2013) 12-20.

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