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CORRIGENDUM: A MIXED BOOLEAN AND DEPOSIT MODEL FOR THE MODELING OF METAL PIGMENTS IN PAINT LAYERS

ENGUERRAND COUKA, FRANÇOIS WILLOT AND DOMINIQUE JEULIN

Center for Mathematical Morphology, MINES ParisTech, PSL Research University, 35 rue Saint-Honoré, 77300 Fontainebleau, France

e-mail: enguerrand.couka@mines-paristech.fr, francois.willot@mines-paristech.fr,

dominique.jeulin@mines-paristech.fr

(Submitted)

The expressions for the distribution function and the cumulative distribution of chord lengths given in (Couka *et al.*, 2015) (Eqs. 3 and 4) are incorrect. The latter must be replaced by:

$$P_1(\ell) = P\{L < \ell\} = 1 - \sqrt{1 - \left(\frac{\ell}{D}\right)^2}, \quad (1)$$

$$P_2(\ell) = 1 - \frac{\ell}{D} \left[\sqrt{\left(\frac{D}{\ell}\right)^2 - 1} - \cos^{-1}\left(\frac{\ell}{D}\right) \right], \quad (2)$$

respectively. The above expressions are numerically very similar to that given in (Couka *et al.*, 2015) and to the measurements carried out on the SEM images (see updated Fig. 1 (a) and (b), which replace Figs. 7 and 18, resp).

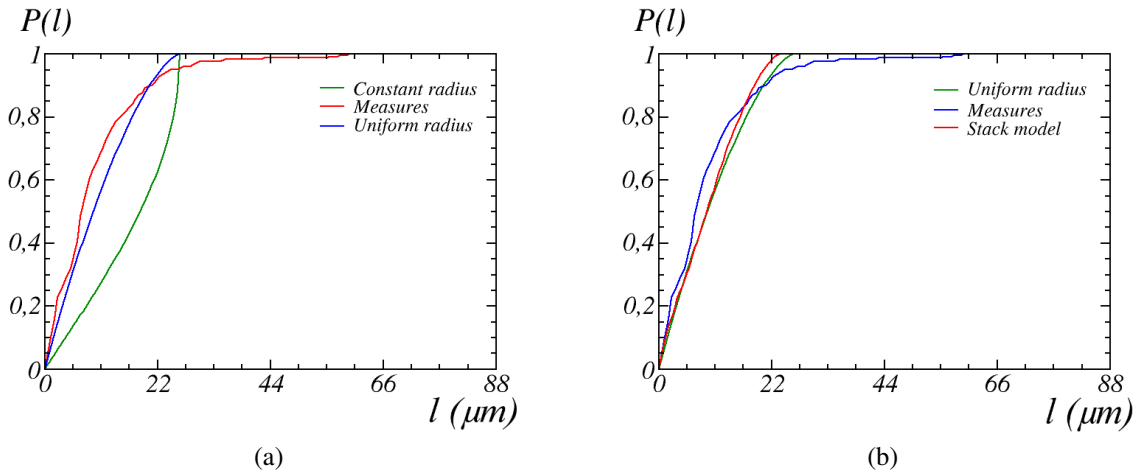


Fig. 1. (a): Cumulative distribution of the lengths of the particles along their main direction, on a 2D section: measurements (red), theoretical distribution for cylinders with constant (green) or uniform diameter (blue). (b): Cumulative distribution function of the length of particles along the main directions as observed on SEM images (blue) and stack model (red). Theoretical formula seen in Eq. (2) shown in green.

REFERENCES

Couka E, Willot F, Jeulin D (2015). A mixed boolean and deposit model for the modeling of metal pigments in paint layers. *Image Anal Stereol* 34(2):125-134.