Raw data of Figures 4 to 12 in "Computational Fluid Dynamic modelling of fully-suspended slurry flows in horizontal pipes with different solids concentrations" Published in KONA Powder and Particle Journal

*Title of Manuscript

Computational Fluid Dynamic Modelling of Fully-Suspended Slurry Flows in Horizontal Pipes with Different Solids Concentrations

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*Keywords

Computational Fluid Dynamics, slurry pipelines, hydro-transport, two-fluid modelling, model calibration

*Data Description

The Excel spreadsheet contains the two tables and the raw data used to plot Figs. 4-12.

The calculations have been performed using the PHOENICS code and in-house MATLAB scripts.

The meaning of the symbols in the Excel spreadsheet is as follows:

- σ is one of the two main calibration coefficients of the two-fluid model
- β is one of the two main calibration coefficients of the two-fluid model
- $i_{\rm m}$ is the hydraulic gradient
- $\langle \Phi_s \rangle_{\gamma}$ is the chord-average concentration
- $\tau_1^{\rm w}$ and $\tau_8^{\rm w}$ are the wall shear stresses induced by liquid and solid phases, respectively
- θ is the azimuthal angle direction
- U_z is the locally-averaged liquid velocity
- $V_{\rm m}$ is the mean flow velocity
- y is the vertical elevation from the pipe bottom
- D is the diameter of the pipe

Note that the experimental data by Kaushal and Tomita (2007) and Shaan et al (2000), shown in **Figs. 7, 8, 11, 12**, were obtained from the PDF version of the published articles. Conversely, the experimental data by Matoušek (2002) were available in tabular format.

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