This dataset contains the model outputs presented in the paper titled *"A wave-resolving 2DV Lagrangian approach to model microplastic transport in the nearshore"* by Jalón-Rojas, I., Sous, D., and Marieu, V., submitted to *Geoscientific Model Development* (2024).

The name of each file follows the format: `Flume_particle_scenario.mat`. The "particle" component consists of two codes: the first indicates shape (`sph` for sphere, `she` for sheet, `fb` for fiber), and the second indicates density (`LD` for low density, `HD` for high density). Specific values for microplastic properties and model parameters are detailed in the associated publication.

Each file contains a MATLAB structure. The variables included in this structure are described in the tutorial available on GitHub: https://github.com/IJalonRojas/TrackMPD/tree/master/Manuals.