

Replication Dataset for

Bed morphodynamics at the intake of a side channel controlled by sill geometry

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Table of contents and brief description of dataset files (RF)

RF1: Matlab code for data analysis and reproduction of figures <RF1_scripts.tar.gz>

This RF contains the script to perform the data analysis and to reproduce the figures in the paper.

Following scripts are used for the different figures:

- Fig. 5: plot_velocity_erosion.m
- Fig. 6: sediment_budgeting.m
- Fig. 7: flow_contraction.m
- Fig. 8: plot_angle_flow.m
- Fig. 9: VectrinoProfiler_discharge_loop.m

All files are written to work correctly in MATLAB R2015a on Ubuntu 14.04 LTS.

RF2: Matlab code for processing of laser scanner data <RF2_scripts.tar.gz>

This RF contains the scripts to process line laser scanner data, which are called from RF1. The main file is laser_calibration2.m. All files are written to work correctly in MATLAB R2015a on Ubuntu 14.04 LTS.

RF3: Matlab code for processing of Vectrino Profiler data <RF3_scripts.tar.gz>

This RF contains the scripts to process Vectrino Profiler data, which are called from RF1.

RF4: Figures <RF4_figures.tar.gz>

This RF contains the final figures as they can be found in the paper.

RF5: Experimental data <RF5_data.tar.gz>

This RF contains all experimental data the flume experiments described in the paper. These files are input to RF1, RF2 and RF3, although conversion to MATLAB files have to be performed for flow velocity data (with Nortek Vectrino Profiler software).

- RF5_XX_data.tar.gz contains data of experiment XX.
- RF5_XXstartup_data.tar.gz contains Vectrino data files of the startup phase of experiment XX.
- RF5_data.tar.gz contains general information on the experimental data.

RF6: Photos <RF6_photos.tar.gz>

This RF contains some photographs taken during the experiments.