

Pierre-Antoine ROUBY (2023-2024)

Construction of a graphical interface for 1D numerical models Supervisors: T. Terrz, L. Pénard & B. Camenen (RiverLy, River Hydraulics team) Fundings: HyR

The main objective of the « PamHyr : Computing interface for 1D models » project is to rewrite in the Python language a platform for pre- and post-processing of one-dimensional hydrosedimentary calculation software developed by the « River hydraulics » team, named Pamhyr2. With the support of the teams of numericians and modellers from INRAE, I go on with the work of S. Coulibay in order to integrate several updates concerning the team's one-dimensional calculation softwares (Mage, RubarBE and AdisTS) to the platform.

The planned development will be done with the following objectives :

- Rewrite a new version of PamHyr in Python with Qt
- Integration of Mage, RubarBE and AdisTS codes
- Implementation of a results mapping routine
- Testing and validation of the platform for each of the codes and their different functionalities
- Cross-platform Linux and Windows
- Implementation of a multilingual interface (French, English)



Example of schematized river network using Pamhyr2