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University of Liège - Faculty of applied-sciences

Application of the SPH method in turbulent free-surface flow for pressure calculation on structures and simulation of debris accumulation during flood events

Master thesis submitted in fulfilment of the requirements for the degree of Master in Engineering Physics by Luca Santoro

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CHAPTER 1

Technical considerations

For the interested reader, here are all the relevant information concerning both the software and hardware specifications.

Hardware components

Component	Specification
Laptop	ASUS ROG Zephyrus G16 (GU605MI)
RAM	32 GB
CPU	Intel Core Ultra 7 155H @ 3.80 GHz (22 logical processors)
GPU 1	NVIDIA GeForce RTX 4070 Laptop GPU
GPU 2	Intel Arc Graphics
OS	Windows 11

Software utilised

Software	Version/Details
Build System	CMake 3.31.7
Programming Language	C++ with Python 3.12.4
GPU Computing	NVIDIA CUDA Toolkit 12.8
ParaView version	ParaView 5.13.3
SPH Framework	Modified SPlisHSPlasH

Data location

Accès aux données complètes :
`https://github.com/Rivlow/Master-thesis-free-surface-turbulent-flow-SPH`

This repository contains all the data, scripts and results mentioned in this submission.