

Final project

Miguel De Le Court

*Methods in High performance computing
DD2356*

Stockholm, June 2021

Outline

Structure of the code

Validation

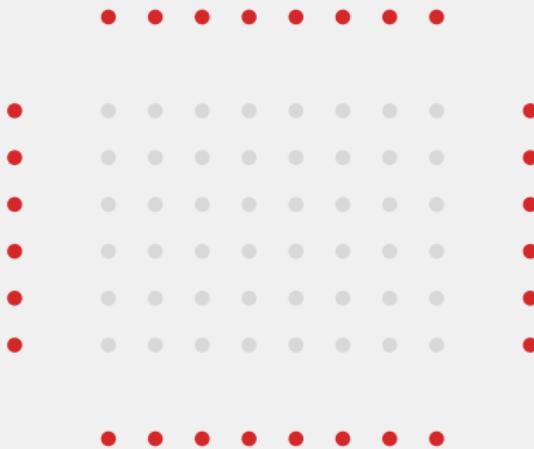
Reference implementation

Comparison with the analytical solution

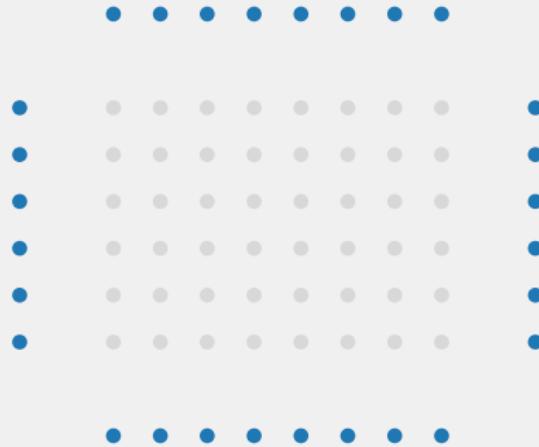
Idle propagation

The last version of these slides and the code presented here are available at
<https://github.com/MiguelDLC/DD2356-Project>

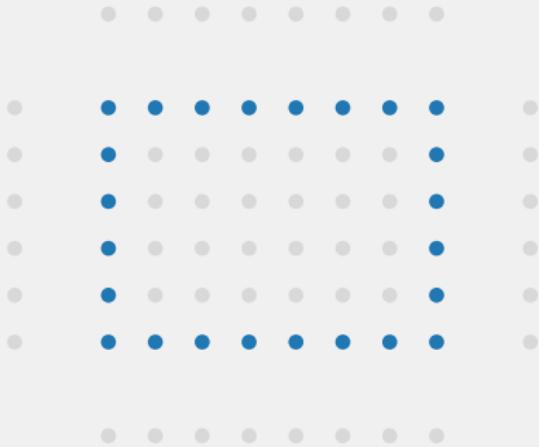
Structure of the code



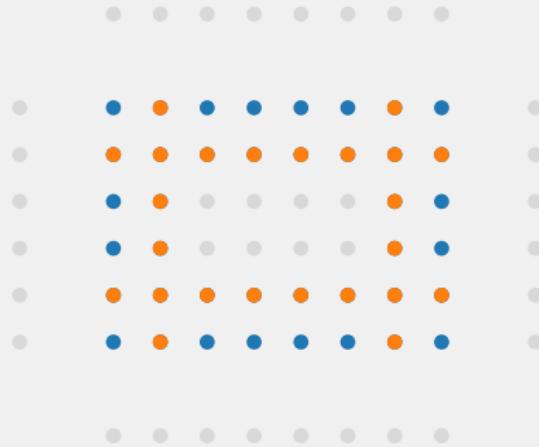
Structure of the code



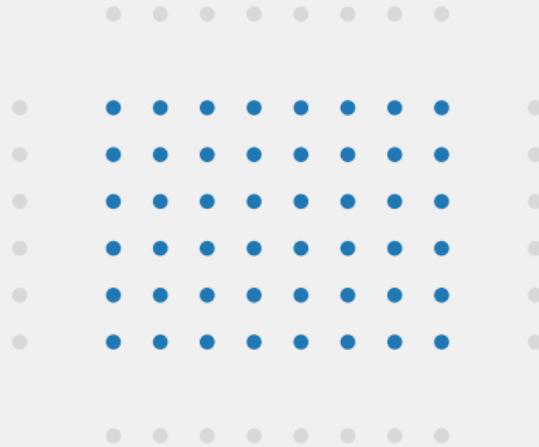
Structure of the code



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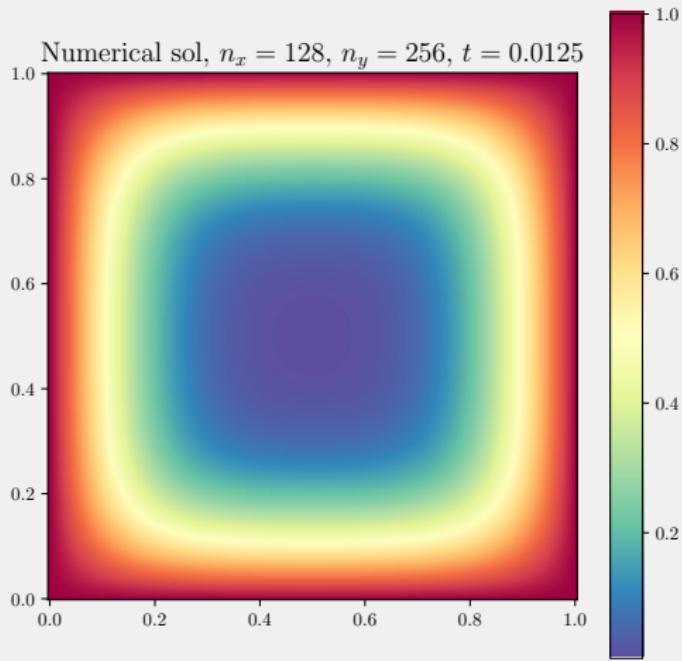


Structure of the code



Validation

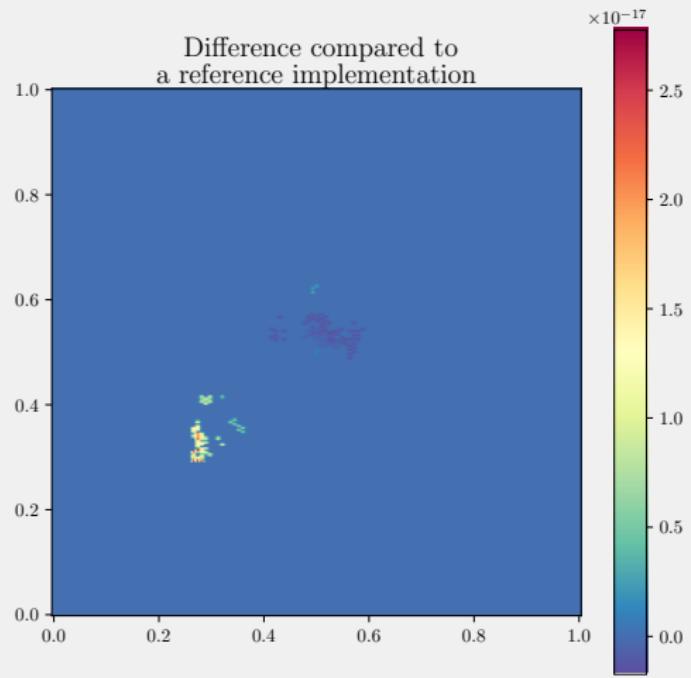
Result computed with the MPI solver



Validation

Comparison with a reference implementation

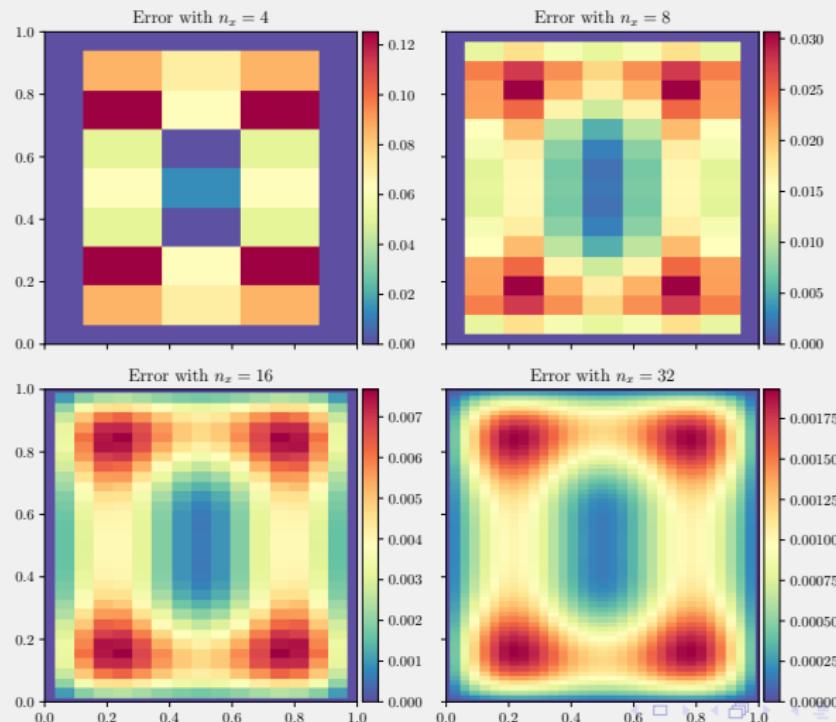
First validation test : check against a reference implementation



Validation

Comparison with an analytical solution

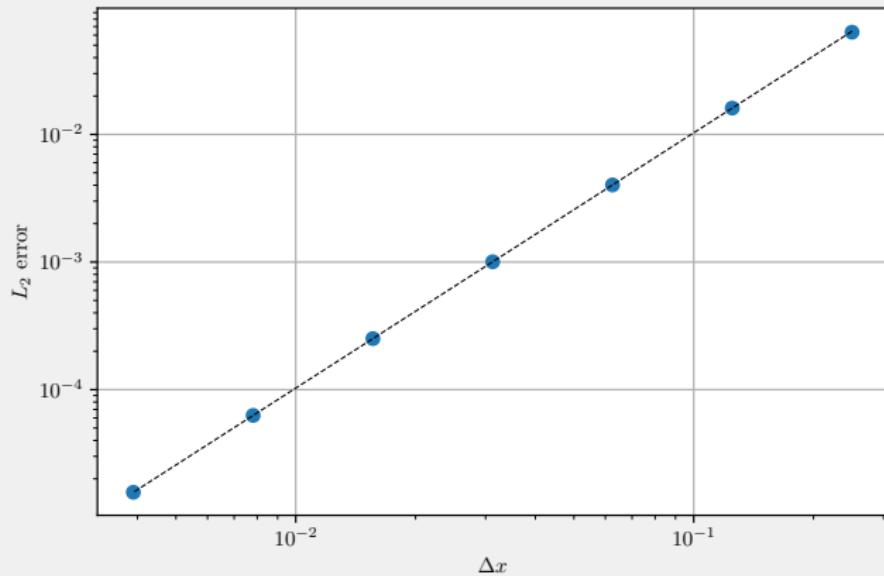
Second validation test : check against a reference implementation and ensure that the error decreases as expected



Validation

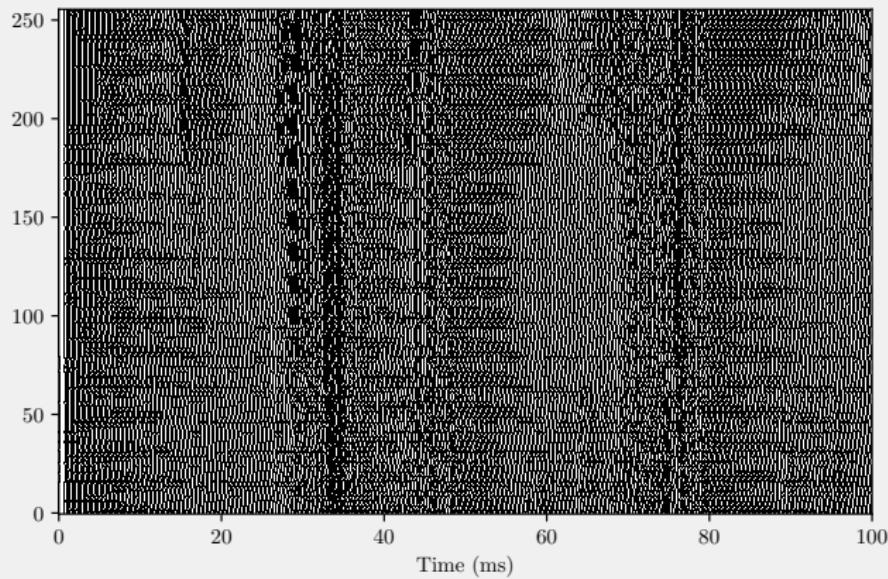
Comparison with an analytical solution

Second validation test : check against a reference implementation and ensure that the error decreases as expected



Idle propagation

Comparison with an analytical solution



Idle propagation

Comparison with an analytical solution

