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Introduction

- FSI background
- + Why FSI, all around us in nature so on
- + Turbulence, in f.ex hemodynamics

Mathematical theory

- Navier-Stokes, short not utledning
- Structure equations,
- + Locking
- ALE and mappings
- + Why ALE and not Lagrangian or Eulerian.
- + State the complete FSI problem
- Boundary/Interface conditions
- + Monolithic vs partitioned
- ++ Why not monolithic, Partitioned D-N gives added mass problem , leaving to R-N
- Robin-Neumann

Implementation with FEniCS

- Finite element method (short!!)
- Monolithic, R-N , different order of approximation.
- What spaces to use and why , Kanskje
- FSI-CODE !!

Verification and validation

- Verification of code
- Taylor Green
- Hron - Turek. Defintion, Results and Discussion
- Pressure wave tube??

Discussion

Conclusion

- Conclusion
- Further work