

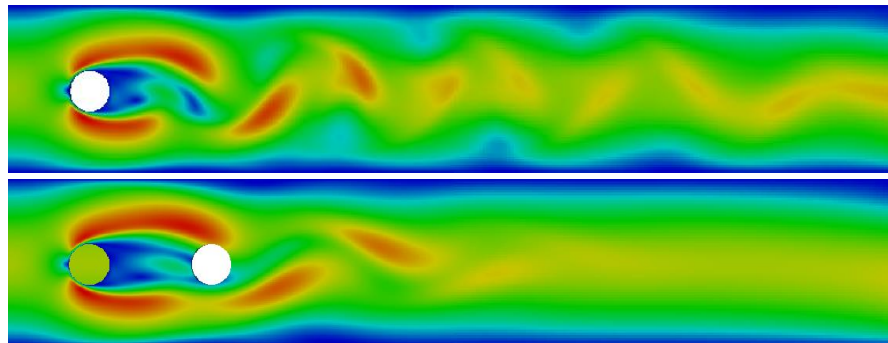
Re-Meshing Strategies for Moving Geometries ensuring Numerical Stability

Project Characteristics

Modeling: ★★☆☆☆
Mathematics: ★★★★★
Programming: ★★★★★

Setting:

- Moving geometries in fluid dynamics are frequent in nature
- However their representation in simulation cause problems in continuity and numerical stability



Your Tasks:

- Design and Implement a re-meshing strategy that only affects the parts of the code's distributed data structure which are affected by the change in geometry
- Enhance the numerical framework to be able to deal with numerical issues caused by continuity violations
- Test the implemented functionality on a chosen engineering application