

Efficient Added Mass Calculations for Large and Complex Floating Offshore Structures

Performing quick design iterations are the key to analyze, optimize and promote useful offshore design in renewable sectors in offshore engineering in cost-efficient ways. In this project the aim is to develop a new fast software tool chain for initial design screening that allows advanced simulation and analysis of complex floating offshore structures such as wave energy devices, wind turbine foundations, seakeeping analysis of ships, etc.

The objective of the project is to both research and develop new numerical simulation techniques that have potential to do conventional engineering analysis orders of magnitude faster than currently established tools for offshore structures of industrial interest. The new tool supports analysis of designs for engineering applications in support of the ongoing green transition.