



PD Researcher  
Mats Jørgen Thorsen  
Dept. of Marine Technology, NTNU  
SFI MOVE  
E-mail: [mats.j.thorsen@ntnu.no](mailto:mats.j.thorsen@ntnu.no)



## Coupled dynamic analysis of subsea mining riser systems

- Sept. 2016 – Sept. 2018
- Supervisor: Svein Sævik (IMT, NTNU)
- Co-Supervisor: Ole J. Nydal (IPT, NTNU)

### Research topics:

- Build a numerical model that allows coupled dynamic analysis of long riser systems applied in subsea mining operations
- Integration of time domain VIV model in SIMA
- Integration of 1D flow model in SIMA

### Industrial goal:

- To contribute towards positioning the Norwegian Maritime industry in the forefront wrt. commercial harvesting of subsea minerals

### Scientific questions:

- How will transients related to start-up and operation of mining riser system contribute to riser response?

### Innovations:

- A framework for performing dynamic response analysis of long riser systems with internal and external flow

### Cooperating company: