

Load monitoring and damage detection



Topic: Advanced Modelling of Composite Structures

•**TITLE:** Analysis of Guided waves (GWs) propagation in cylindrical composite vessels

•**RESEARCH BACKGROUND:** Development of a technique based on GWs requires careful understanding obtained through modelling and analysis of wave propagation.

•**RESEARCH ACTIVITIES:**

1. Investigate the different methods for analysing of GWs propagation in composite structures.
2. Develop a finite element model to model the wave propagation in the composite cylinder.
3. Develop a methodology to analyse the propagation and dispersion of GWs.

•**METHODOLOGY:** Numerical, Programming

•**DURATION:** 12 months

•**CONTACTS:**

andrea.manes@polimi.it

claudio.sbarufatti@polimi.it

marco.giglio@polimi.it

