

## **Waves in Fluids and Elastic media: Computation and Mathematics**

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**Key words:** Waves, Fluids, Elastic media, Computation, Mathematics.

### **ABSTRACT**

This MS will bring together researchers in science, engineering and applied mathematics to explore recent advances in computational methods and mathematical analysis about various wave phenomena in fluids and elastic media such as surface waves, internal waves, bubbles, droplets, cavitation, wave-wave interaction, wave-body interaction etc. Topics will cover (but not limited to) Numerical methods and Scientific computing (FDM, FEM, FVM, BEM, SPH, Spectral methods etc.) for linear and nonlinear waves, AI approaches in wave computation (Data-driven and Machine learning), Mathematical analysis of wave equations (ODE, PDE), Numerical and analytical stability analysis etc.