

INVITATION TO ATTEND A

WORKSHOP:

WAVE PHYSICS AND IMAGING APPLICATIONS

You are invited to join our full day in-person workshop on all things wave physics, wave propagation, and imaging across a range of applications to support and initiate research exchange.

The workshop takes place **Friday 20 May 2022** at the University of Helsinki, Exactum, CK112, 09:00 - 17:00.

We appreciate if you indicate your interest to attend to <christina.tsarsitalidou@helsinki.fi> or by completing this e-form tinyurl.com/waves20May to help us assess the catering needs, but registering is not mandatory.

PROGRAM

9.00 Hillers; Seismology; **Introduction**

9.15 Wolf; Applied Math / Numerical Wave Propagation; **Time reversal of elastic waves**

9.45 Weir; Cosmology; **Gravitational wave cosmology**

10.15 Break

10.30 Courbis; Seismology; **Sisprobe and Helsinki region ambient noise surface wave tomography**

11.00 Krenz; Applied Math / Numerical Wave Propagation; **Coupled elastic-acoustic simulations**

11.30 Zhou; Electrodynamics / Space Physics; **Ultra-low frequency plasma waves in Earth's magnetosphere**

12.00 Lunch

13.00 Meaney; Applied Math; **Image reconstruction in low-dose cone beam computed tomography**

13.30 Oksanen; Applied Math; **Computational methods for acoustic inverse problems**

14.00 Nieminen; Ultrasound / Biomedical Engineering; **Medical needle functionalized by ultrasound**

14.30 Break

14.45 Tarvainen; Medical imaging; **Imaging with light and sound**

15.15 Catheline; Acoustics / Medical Imaging; **Wave experiments in soft tissues and membranes**

15.45 Break

16.00 deRosny; Acoustics; **Localization of scatterers on elastic plates**

16.30 **Discussion**

This workshop is supported by the Institut Français de Finlande, the French Ministry of Higher Education, Research and Innovation, and the Finnish Society of Science and Letters within the Maupertuis 2021 framework to strengthen bilateral cooperation in science, innovation, and higher education between researchers in France and Finland, and by the Academy of Finland research project "Seismic surface wave focal spot imaging", decision number 322421.