

Summer School on Core Mantle Interactions Through Time

Session CXVII

June 28 - July 23, 2021

Organizers: Stéphane Labrosse, Barbara Romanowicz & Christine Thomas

Additional Scientific Committee: Paul J. Tackley, Véronique Dehant, John Brodholt & Philippe Cardin

Overview: The school brings together a cohort of senior graduate students and postdocs to tackle important and unsolved research problems. Senior participants from various institutions, and representing a range of disciplines relevant to the theme, serve as instructors and mentors for group research projects. The first two weeks of the program are devoted to lectures and tutorials, covering the basic tools and approaches of the various disciplines. The second two weeks are used to develop multidisciplinary research projects in groups with a good mix of expertise.

Website: <https://coremantlehouches.github.io/>

Lectures and tutorials:

Geodynamics: Core dynamics, mantle dynamics, core formation, geo- and palaeomagnetism, geodynamo theory, core-mantle coupling.

Earth structure seen from its gravity field.

Seismology: body waves, normal modes and surface waves, inverse problem theory, seismic tomography, structure near the core-mantle boundary.

Mineral physics: Crystal structure, deformation mechanisms, ab initio calculations, physical properties of the core and mantle.

Geochemistry: Isotopic geochemistry, heterogeneity of the mantle, evolution of the Earth, core formation, magma ocean processes.

Instructors:

Sanne Cottaar (Cambridge University)

David Dobson (University College London)

Paula Koelemeijer (Royal Holloway University)

Monika Korte (GFZ Potsdam)

Maylis Landeau (Institut de Physique du Globe de Paris)

Allen McNamara (Michigan State University)

Jonathan Mound (University of Leeds)

Isabelle Panet (Institut Géographique National)

Nathanaël Schaeffer (Université Grenoble Alpes)

Andreas Stracke (University of Münster)

Reidar Trønnes (Natural History Museum, Oslo)

Lidunka Vočadlo (University College London)

Richard Walker (University of Maryland)

Topical Seminars will be given during the School by participating Scientists

Poster presentations by Participants

Registration: The online Application can be found on <https://www.houches-school-physics.com>. Applications must reach the School before March 1, 2021 in order to be considered by the Selection Committee. The full cost per participant includes housing and meals, and is specified on the School's Website. Further information can be found on the Website too. One can contact the Les Houches Physics School at:

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149 chemin de la Côte
F-74310 LES HOUCHES, France

Director: **Béregère Dubrulle**
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Location: Les Houches is a village located in Chamonix valley, in the French Alps. Established in 1951, the Physics School is situated at 1150 m above sea level in natural surroundings, with breathtaking views on the Mont-Blanc mountain range, conducive to reflection and discussion.

