

Hands-on! High pressure school at the ESRF. 17-21th June 2019













This school aims to give an introduction to high pressure research at synchrotron radiation facilities and to present the unique opportunities in this field with the ESRF-EBS (Extremely Brilliant Source) upgrade. It comprises lectures covering the basic principles of SR techniques used to explore matter at extreme conditions. The new capabilities of the EBS machine and the upgraded beamlines will be also presented in detail. Lectures will be completed with "hands-on" step by step practicals. We would like to promote a lively exchange between experts in the field and our future user community on instrumental developments to exploit the EBS upgrade.

Be ready! for the restart of the ESRF-EBS and next generation synchrotrons!

The EBS, together with beamline upgrades and technical advancements in high pressure instrumentation, will offer new and unique research opportunities for studies at extreme conditions.

- 1. Increase in brilliance
- 2. Lower horizontal emittance
- 3. Higher coherence fractions
- more flux to study highly diluted and low Z elements
 smaller beamsizes to probe matter at multi Mbar
- ♦ for better imaging

We will train you! in high P and high/low T techniques including the diamond anvil cell (resistively heated, laser-heated and cryogenic cooled), the autoclave, the Paris-Edinburgh press and the Large-volume-press. Lectures will be held in the morning. In the afternoon, small groups of 5 people will be trained in one technique step by step throughout the week.

Pre-registration will be opened early 2019 at the ESRF website.

Maximum 30 participants for practicals, 70 for lectures. All participants are invited to present a POSTER.

Costs: estimated 250 € (accommodation and meals included)

Confirmed invited speakers / lectures:

Denis Andrault Daniel Braithwaite Leonid Dubrovinsky Jochen Geck Yann Le Godec Federico Aiace Gorelli Nicolas Guignot Koen De Hantsetters Nadege Hilairet Tetsuo Irifune Stefan Klotz Yoshio Kono Paul Loubeyre Marion Louvel Guillaume Morard

Gleb Pokrovski Jean-Phillipe Perrillat Chrystele Sanloup Ilya Sergeev Thomas Sheppard Laurent Truche Max Wilke



Main-Organizers: A. D. Rosa, G. Garbarino, J. Jacobs, Eva Jahn, Sonya Girodon
 Co-organizers: V. Svitlyk, D. Sifre, R. Torchio, L. Henry, N. Sevelin, J-L. Hazemann
 In-house Speakers: S. Pascarelli, F. Wilhelm, A. Chumakov, C. Sahle, M. Hanfland, L. Paolasini, W. Chrichton, D. Testemale, , M. Mezouar