

## Foreword

The 2018 edition of the “Ecole thématique de la Société Française de la Neutronique (SFN)” was organized as a four-day workshop in Carqueiranne, France, from September 16<sup>th</sup> to 19<sup>th</sup>, and focused on “**Neutrons & Biology**”. This school was organized with the support of CNRS (formation permanente), Laboratoire Léon-Brillouin (LLB, France), Institut Laue-Langevin (ILL, France), Fédération Française de Diffusion Neutronique (2FDN), Institut de Biologie Structurale (IBS, France), and Université Grenoble-Alpes (UGA, France).

The school developed the following thematic sessions:

- a **general introduction** to neutron techniques (José Teixeira, LLB),
- a session dedicated to **structural studies** in biology, in particular:
  - o **neutron crystallography**, composed by an introduction to the theory of protein crystallography (Nathan Zaccai, Univ. Cambridge, UK) and a lecture on instrumentation (Nicolas Coquelle, ILL),
  - o **small-angle neutron scattering (SANS)**, with a theoretical introduction (Cy Jeffries, EMBL, Germany) and a lecture on SANS instrumentation (Anne Martel, ILL),
  - o **neutron reflectometry** theory and instrumentation (Fabrice Cousin, LLB),
- a session dedicated to the use of **inelastic neutron scattering** for studying biomolecular **dynamics** composed by an introduction to theory (Giorgio Schirò, IBS) and a lecture on instrumentation (Andrea Orecchini, Univ. Perugia, Italy),
- three lectures on the integrated use of neutrons and complementary techniques in biology (**transversal studies**) by Nathan Zaccai, Frank Gabel (IBS), and Jayesh Bhatt (Univ. College London, UK),
- a large part of the school was also dedicated to **tutorials** on neutron crystallography (Nicolas Coquelle), SANS (Sophie Combet, LLB, and Anne Martel), quasi-elastic and inelastic neutron scattering (Andrea Orecchini), and reflectometry (Sebastian Koehler, ILL),
- and, last but not least, a session to learn **how to write a proposal** to succeed in obtaining neutron beam time (Giulia Fadda, LLB).

This issue is mostly dedicated to the lectures of the school.

Enjoy the reading!

The organizing committee: Sophie Combet, Viviana Cristiglio (ILL), Giulia Fadda, Anne Martel, and Giorgio Schirò.