Short summary of French-German round table discussion

Dresden, 11th of March 2026

A Round Table on the topic "**Novel Opportunities for Cooperation between France and Germany in Neutron Science"** was organized by Benoit Coasne and Christine M. Papadakis. This one-hour session was hosted by Julian Oberdisse and Frank Schreiber, who presented the possibilities offered by neutron scattering in condensed matter physics and chemistry as well as in biophysics at the neutron sources in France and Germany, but also on the European level. Six panelists, representing the French and the German neutron sources as well as the respective user communities, answered numerous questions from the audience, e.g. around the possibilities to get access to neutron experiments. Here, the increasingly available virtual instruments ("digital twins") that allow estimating measurement times and statistics for given types of samples are an attractive tool during the preparation of beamtime proposals. Moreover, the unique possibilities offered by neutron experiments, which often are complementary to those of X-ray experiments, were discussed. Data analysis and the new developments involving artificial intelligence were another topic of the lively discussion.

Overall, it emerged that many societal challenges can be tackled with neutrons, e.g. in the field of energy, climate and environment, health and food, mobility, cultural heritage, and innovation. This highlighted the broad range of scientific and job opportunities for young researchers trained in neutron science to make a significant contribution to such topics and thus to the associated economic sectors. This holds both for the French, German and European neutron sources, but also for the upcoming compact sources. These activities are reinforced, among others, by the French-German (ANR-DFG) joint research program.

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