Introducing the New Editor-in-Chief of "Superconductivity News Forum"

April 2022

It is with great enthusiasm that I assume the role of the new Editor-in-Chief (EiC) of "Superconductivity News Forum" (SNF), following my two predecessors, Horst Rogalla and Alex Braginski.

I am confident that I echo a worldwide sentiment that SNF is a very useful tool for promoting the international advances in superconductivity R&D and sharing those results to better human life on a global scale. The key role played by the IEEE Council of Superconductivity (IEEE CSC) and the European Society of Applied Superconductivity (ESAS), as well as other scientific societies around the world, in supporting the activities and the initiatives of SNF have been outstanding and have contributed to its success. I am convinced that the synergetic initiatives being generated are very useful, thereby contributing to the expanding impact of the scientific and technological R&D in superconductivity.

For the past 17 years SNF has evolved and matured into a solid tool for the international superconductivity community. The initial concept of Alex Braginski was generated in the scope of the European network of excellence SCENET, and its international breadth was very soon extended through an agreement among IEEE CSC and ESAS. I, myself, was strongly involved in these original actions, first in SCENET, and then as ESAS President for several years, so now I am honored to take the responsibility of continuing the endeavor to promote a dynamic SNF.

Superconductivity is a truly unique scientific discipline due to its broad impact covering many fields; it is an enabling technology. It begins with a continuous flow of novel physical ideas and new materials, continues with non-stop improvements in processing and manufacturing of materials and devices, leading to the result of this integration -- final products with high performances. Many technological sectors facing huge challenges are benefiting from the unique contribution of superconductivity: clean and efficient electrical energy generation and use (smart grids, fusion, rotating machinery), biomedicine (NMR, MRI, proton therapy, neuroscience), computing (quantum technologies), communication networks, electronic sensors, electrical transportation (aeronautics, ships), high energy physics (magnets, detectors) and astrophysics (dark matter and photon detectors, etc.). The superconductivity community has, therefore, an interdisciplinary character involving members from both academia and industry, as is demonstrated in many international conferences of various disciplines being held all around the world.

An important challenge for our community is to continue attracting talent to the field. A fierce world-wide competition exists in attracting young scientists to specific disciplines, and so the superconductivity community must perform renewed outreach efforts to increase its potential impact and professional attractiveness. Not to mention, the need to enhance the gender balance in our conferences, committees, and professional positions. As we are all aware, social media and electronic communications bring at present a large panoply of tools to keep the communities in close contact so we should promote an expanded use of these opportunities where young people interact regularly and confidently.

I am sure that most of you are already aware of the catalytic effect that SNF has played in promoting a worldwide spread of the R&D advances in superconductivity. Up to now, numerous SNF Issues have been

published that include the presentations of renowned speakers at international conferences, mainly invited and plenary speakers. These SNF Issues have become a true archive of the recent history of superconductivity, along with many additional contributions celebrating special dates or anniversaries of outstanding discoveries and the news about people, recent advances, and events.

The SNF editorial team is comprised of the key persons responsible for collecting contributions from renowned speakers for inclusion in SNF Issues, detecting special events (schools, workshops, conferences) or advances deserving to be highlighted on the SNF website, and for the efficient management of this information. Thanks to all of them (Herbert Freyhardt, Anthony Przybysz, Kazuhiko Hayashi and Jennifir McGillis) for their willingness to continue to contribute to the success of SNF. Also, I would like to acknowledge the SNF associate editors and editorial board members for their continuous support and their help to keep the outstanding character of SNF. Last but not least, I would like to acknowledge the key role played by our sponsoring organizations the IEEE CSC and ESAS, which I am sure will continue in the future.

I would like to conclude by acknowledging my recent EiC predecessor, Horst Rogalla, and the first EiC, Alex Braginski, for the huge contribution and efforts they have made throughout the years to ensure a successful SNF. The present maturity and usefulness of this tool is now well recognized by the international community, and I think that I speak for all when I express both sincere gratitude and best wishes to Horst for all his future endeavors.

As for me, I am committed to devoting my energies and knowledge to continue the path started and maintained so successfully by Alex and Horst. I would like to ask to all the members of the international superconducting community to contribute to the increased impact of SNF. The editorial team of SNF looks forward to receiving both your scientific contributions and your ideas about how to improve our initiatives.

Xavier Obradors

Institut of Materials Science of Barcelona (ICMAB – CSIC)