Short biographical note
Kristiaan Temst

Kristiaan Temst obtained his PhD in Physics at KU Leuven (Belgium) in 1994. He has (co-)authored about 280 papers in peer-reviewed journals and is frequently invited speaker at symposia and conferences. His current (March 2024) h-index is 34. He has been the promoter of 21 PhD theses and serves/d in the PhD committees of 75 PhD students (about 15 of them outside of KU Leuven). He is a frequent user of international research infrastructure (synchrotron x-rays, neutrons, muons, ion beams) and strives for the optimal complementarity between in-house research activities and research carried out at international research infrastructures. He serves on the beam time selection committees of numerous neutron, synchrotron and ion beam facilities. He was co-organizer of the 16th International Symposium on Small Particles and Inorganic Clusters (Leuven, 2012), vice-chair of the Ion Beam Modification of Materials conference (Leuven, 2014), and chair of the International Conference on Hyperfine Interactions and their Applications (Leuven, 2016). At KU Leuven he teaches introductory physics in the Faculty of Medicine and specialized master courses (Advanced Experimental Techniques, Clusters and Nanoparticles, Historical and Social Aspects of Physics) in the Faculty of Science and the Faculty of Engineering Science. He received several educational grants and teaching excellence awards. In 2001 he was the laureate of the scientific prize of the Center for Nuclear studies (SCK-CEN) in Mol, Belgium. In 2016 he was laureate of the Science Communication Award of the Royal Flemish Academy of Sciences of Belgium. From 2015 until 2019 he was chairperson of the Department of Physics and Astronomy at the KU Leuven. Currently he is the director of the Quantum Solid State Physics division at KU Leuven. The activities described above have provided him a broad overview as well as many personal contacts within the area of condensed matter physics as well as other physics subdisciplines. Having taken up duties within the KU Leuven (at the level of the department and the faculty) and internationally, he is familiar with the international research and funding landscape, has a broad network and draws on this experience for the management of the own research group. As a supervisor, he believes strongly in a collegial atmosphere and a personal coaching of PhD students and other collaborators while striving for innovative research. He has managed numerous research projects and puts in special effort to keep the laboratories and equipment at state-of-the-art level. For the future he aims at maintaining his activities in the area of magnetic nanostructures, as well as broadening his research interests to the area of hybrid superconducting/magnetic structures relevant to the second Quantum Revolution. Apart from his position as a full professor at the KU Leuven, he additionally also has a 10 percent affiliation to imec (Leuven) as guest professor. Within that position he is mostly involved with the teams working on new architectures for magnetism-based memory and logic, in particular the aim to produce voltage-controlled magnetic devices which will consume far less power than the current generation of devices. Last but not least he is also very actively engaged in development programs with the Global South. He is the coordinator of a broad and long term (2021-2031) development program between several Flemish universities and university colleges (KU Leuven, U Hasselt, U Gent, U Antwerpen, HO Gent, VIVES) and Quy Nhon university in Vietnam, focussing on improving the livehood circumstances of farmers in the region around Quy Nhon and capacity building at Quy Nhon university.

Experience of conducting research with and the management of research infrastructures.

- KU Leuven representative (since 2008, chair since 2019) in the BELSPO NAC-SRN (Belgian National Advisory Committee on Synchrotron Radiation and Neutrons).
- Belgian representative in the European Neutron Scattering Association (since 2015).

- Member of the scientific review committees for allocation of neutron beam time at Oak Ridge National Laboratory, TN, USA (2008-present, chair since 2014); National Institute of Standards and Technology, Gaithersburg, MD, USA (2008-present); Juelich Center for Neutron Science station at Garching, Germany (2009-2016; again since 2021); Institut Laue-Langevin, Grenoble, France (2012-2016); Laboratoire Léon Brillouin, Saclay, France (2009-2015).
- Member of the INTC scientific committee at ISOLDE, CERN, Geneva (allocation of beam time for radioactive ion beams in ISOLDE for nuclear and solid-state physics experiments) (2018-2020).
- Member of the Access Review Panel for the NFFA (Nanoscience Foundries and Fine Analysis) distributed research network, Trieste, Italy (Since 2017)
- Member of the CERIC-ERIC (Distributed European Research Infrastructure) Proposal Review Panel, Trieste, Italy (since 2017).
- Member of program council and review committee for synchrotron beam time of the Dutch-Flemish beamline DUBBLE at the European Synchrotron Radiation Facility (2013-2023).
- Member of the User Selection Panel for the Ion Beam Center at the Helmholtz Zentrum Dresden-Rossendorf (since 2014).
- Member of the Scientific Advisory Board of LINXS, Lund University, Sweden (since 2023).
- Member of the Scientific Advisory Committee for the Helmholtz Zentrum Berlin (since 2024).
- Chair of the SciNet scientific advisory board for the e-IMPRESS Network (since 2023).
- Member of the ESFRI Physical Sciences and Engineering workgroup, charged with the ESFRI roadmap for international research infrastructures and the selection of new infrastructures (since 2015, vice-chair since 2020, chair since 2022). In that capacity he has contributed to the three most recent ESFRI roadmaps as well as to the evaluation and selection of new ESFRI Projects and Landmarks. As chair of the Physical Sciences and Engineering workgroup he is closely involved in the monitoring of ESFRI Landmarks and the 2023/2024 Landscape Analysis. He is also closely involved in promoting closer links between Research Infrastructures and industry.