INFN News

BREAKTHROUGH NEW HORIZONS IN PHYSICS PRIZE GOES TO ANNA GRASSELLINO



Anna Grassellino, senior research scientist at Fermilab in Chicago and director of Fermilab's SQMS Superconducting Quantum Materials and Systems Centre, was awarded the Breakthrough New Horizons Prize "for the discovery of major performance improvements in niobium superconducting radiofrequency cavities, with applications ranging from accelerator physics to quantum devices". Grassellino's research focuses on

superconducting radio frequency, known as SRF, technology, at the heart of modern particle accelerators. In particular, Grassellino has devoted herself to understanding and improving the performance of SRF cavities to enable new applications, ranging from particle accelerators to detectors and quantum information science. Anna Grassellino, after graduating in electrical engineering from the University of Pisa, began her career at INFN and later obtained her Ph.D. from the University of Pennsylvania before joining Fermilab in 2012. She is a member of the American Physical Society and has received numerous awards for her pioneering contributions to SRF technology, such as the discovery of nitrogen doping, a technique that greatly increases the efficiency of SRF cavities. Awards received include the 2017 Presidential Early Career Award, the 2017 Frank Sacherer Prize from the European Physical Society, the 2016 IEEE PAST Award, the 2016 USPAS Award, and a DOE Early Career award.

INFN is one of the partners, the only non-US partner, in the SQMS project led by Anna Grassellino.