Open questions and perspectives in flavour physics

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In spite of its incredible success, the Standard Model of particle physics leaves many fundamental questions unanswered, among which, for example, neutrino masses, matter-antimatter asymmetry and the nature of dark matter. Flavour physics (the intensity frontier) is one of the main fields of investigation to unveil the unsolved questions. A review of recent experimental and theoretical results and perspectives will be presented.

Prof. Guido Martinelli graduated in Physics in 1975 under the supervision of Nicola Cabibbo and Giorgio Parisi. In the years 1977-1987 he has been researcher at the Frascati National Laboratories of the National Institute of Nuclear Physics (INFN); From 1988, he has been Associate Professor of Theoretical Physics at the University La Sapienza of Rome and Since 1990 he become Full Professor. He has held executive position in several institutions. Among other positions, he has been Director of the Department of Physics (2001-2007), he has been Member of the Scientific Committee and of the Advisory Board of the Galileo Galilei Institute for Theoretical Physics (2006-2015), President of the Science and Technology “Ateneo” of the University La Sapienza in Rome (2007-2010), President of CSN4 of the INFN (2009-2011). Furthermore, he has been Director of the International School for Advanced Studies (SISSA) in Trieste (2010-2015), and Since January 2015 he is Member of the CERN Scientific Policy Committee. He is member of the Accademia Nazionale dei Lincei.