## 6th Summer School on INtelligent signal processing for FrontIEr Research and Industry



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## LHCb, AN INNOVATIVE EXPERIMENT AT CERN TO SEARCH FOR NEW PHYSICS THROUGH FLAVOUR

Thursday, 26 August 2021 11:50 (1h 10m)

Dr. Monica Pepe Altarelli will present the LHCb experiment, its objective and main results, with particular emphasis on its triggerless read-out and its impact on the overall data strategy chain.

After completing her studies at the University of Genova, Italy, with a thesis on neutrino counting from radiative Z decays, in 1983 Monica Pepe Altarelli joined the Rutherford Laboratory as Research Associate in the NA32 experiment on hadronic production of charmed particles at the CERN SPS accelerator. In 1987, she joined CERN as research fellow in the ALEPH experiment at the LEP accelerator, working mainly on data analysis; she was one of the principal authors of the first measurement of the number of light neutrino species, one of the main results of LEP, in a small group led by Jack Steinberger. She continued to work with the ALEPH experiment as research physicist at the "Laboratori Nazionali di Frascati" of the INFN, concentrating her research on precision tests of the Standard Model in the electroweak physics sector, as convener of the analysis group on electroweak physics. She became CERN staff in the year 2000 and joined the LHCb experiment at the LHC, first as leader of the CERN team and then, from 2014 to 2017, as deputy spokesperson of the LHCb collaboration. Her current main scientific interest is the search for New Physics beyond the Standard Model through the study of very rare decays of charm and beauty-flavoured hadrons and precision measurements of CP-violating observables with the LHCb detector.

(Credit: Monica Pepe-Altarelli)

Presenter: Dr PEPE-ALTARELLI, Monica (CERN)

Session Classification: MORNING SESSION 3, PLENARY LECTURES