

The CERN Next Ion Medical Machine Study: Towards a Next Generation of Accelerators for Ion Therapy of Cancer

Wednesday 3 November 2021 16:15 (1 hour)

Cancer therapy with beams of particles heavier than protons has several advantages with respect to conventional radiation therapy but is presently provided in only a few facilities, primarily because of the size and cost of the accelerator. To make this advanced form of therapy accessible to a larger fraction of the population, CERN has recently started a wide collaborative study based on its large experience in accelerator technology. Its goals are to identify and develop technologies that will improve the accelerator, integrating at the same time innovative delivery techniques like FLASH therapy. After reviewing the opportunities provided by ion therapy, the speaker will present an overview of various accelerator designs and technologies and will introduce some ongoing European initiatives to build a next generation ion therapy system.

PLEASE NOTE EXCEPTIONAL DAY OF SEMINAR

Presenter: VRETENAR, Maurizio (CERN)