SUMMER STUDENT LECTURE PROGRAMME 2018

Lecture Title	Physics and Medical Applications
Lecturer's name	Manjit Dosanjh
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Short CV	Manjit Dosanjh is Senior Advisor for Medical Applications at CERN. After obtaining her degree in Biochemistry/Chemistry at the University of Leeds and PhD in Biochemical Engineering from the University of Birmingham England, Manjit went to Massachusetts Institute of Technology (MIT, USA) as Postdoctoral fellow and has held positions as a senior scientist at LBNL Berkeley. Since joining CERN in 2000 she has focused on applying the technologies developed for particle physics to the life sciences domain. She
Lecture Content	The lectures will address the role of particle physics in the development of technologies in the biomedical domain especially the use of ionizing radiation for medical imaging and therapy ever since the discovery of X-rays by Roentgen in 1895. The challenging demand for particle physics has pushed the detector performance to very high limits both in terms of spatial and time resolution
Pre-requisites: earlier series of lectures that the students should follow	Assumes that the students have attended the accelerator and detector lectures.
Other pre-requisites:	Interest in how knowledge and technologies beig developed in HEP can be used for medical applications at society at large