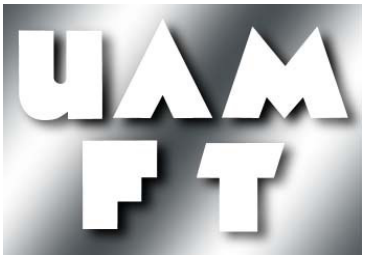

COLOQUIOS PACO YNDURÁIN 2009/10
Departamento de Física Teórica

Miércoles, 4 de Noviembre de 2009, 15 h.
Facultad de Ciencias, Sala de Conferencias Módulo 00

Particle Accelerators in Diagnostics and Cancer Therapy

Prof. Ugo Amaldi
University Milano Bicocca and TERA Foundation

Abstract: Hadrontherapy with protons and carbon ions is a fast developing methodology in radiation oncology. The accelerators used and planned for this purpose are reviewed, after an explanation of the rationale of hadrontherapy and a review of the expected number of patients. For proton therapy, normal and superconducting cyclotrons are employed, together with synchrotrons; while for carbon ion therapy, synchrotrons have been until now the only option. The latest developments concern superconducting cyclotrons for carbon ion therapy, fast-cycling high frequency linacs, particularly developed by the TERA Foundation, and various types of single room proton therapy facilities. These issues are discussed in the last part of the presentation by underlining the present challenges, in particular the treatment of moving organs.

Más información: http://www.ft.uam.es/docencia/seminarios.html