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SAFEST project, a compact C-band RF linac for VHEE FLASH radiotherapy

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FLASH Therapy, an innovative cancer treatment, minimizes radiation damage to healthy tissue while maintaining the same efficacy in tumor cure as conventional radiotherapy. Successful integration of FLASH therapy into clinical practice, specifically for treating deep-seated tumors with electrons, relies on achieving Very High Electron Energy (VHEE) within the 50-150 MeV range.

In collaboration with INFN, Sapienza University actively develops a compact C-band high-gradient VHEE FLASH linac called SAFEST. This paper presents the general layout and the main characteristics of the machine and the first prototype set for deployment at Sapienza University of Rome. This endeavor is a significant step towards the clinical implementation of FLASH Therapy.

Footnotes

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Europe

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