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## Superconducting magnets technology for heavy ion gantry for hadron therapy

*Wednesday, 22 May 2024 09:00 (30 minutes)*

Various initiatives in Europe have been launched to study superconducting magnets for a rotatable gantry suitable for delivery up to 440 MeV/A carbon ions for hadron therapy. Various technologies and layouts are being considered: strongly curved cos-theta dipole ( $R_{\text{bending}} = 1.6$  m) rated for 4 T central field and a ramp rate of 0.15 –0.4 T/s. or novel Canted Cosine Theta (CCT) dipoles in combined functions layout. Beside classical NbTi superconductors also HTS is being explored with CCT layout. The concept and the progress in the construction of three first prototypes to validate the various concepts is discussed.

### Footnotes

### Funding Agency

### Paper preparation format

### Region represented

Europe

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**Session Classification:** WEXN: Applications of Accelerators, Technology Transfer and Industrial Relations and Outreach (Invited)

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