The 16 T Dipole Development Program for FCC

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Abstract:

A key challenge for a future circular collider (FCC) with centre-of-mass energy of 100 TeV and a circumference in the range of 100 km is the development of high-field superconducting accelerator magnets, capable of providing a 16 T dipolar field of accelerator quality in a 50 mm aperture. This paper summarizes the strategy and actions being undertaken in the framework of the FCC 16 T Magnet Technology Program and the Work Package 5 of the EuroCirCol.

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Contents

European project EuCARD is Fresca2 [4] –[5]: the magnet, which also features a large 100 mm bore, is planned to be assembled by the end of 2016.

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