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The short model program of Nb3Sn quadrupoles for the HiLumi LHC and its potential

Wednesday, 10 May 2023 15:00 (30 minutes)

In the past five years, seven short models of the inner triplet quadrupole for the High Luminosity LHC, based on Nb3Sn conductor, have been built and tested, reaching conductor peak fields above 13 T. In this talk we will review the main features of this program, outlining the scope of the program, the different variants manufactured, and the test results. Special emphasis will be given to test to assess the performance versus the preload strategy. The potential of this technology, together with the challenges and the possible outlook for other accelerator magnets based on the same technology will be presented.

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Footnotes

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Primary author: Dr FERRACIN, Paolo (Lawrence Berkeley National Laboratory)

Presenter: Dr FERRACIN, Paolo (Lawrence Berkeley National Laboratory)

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