

Nb₃Sn accelerator magnet and superconductor R&D at Fermilab.

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Abstract. Fermilab is working on the development of Nb₃Sn accelerator magnet technologies in collaboration with U.S. National labs, universities and industry. A first step of this R&D includes the demonstration of the main magnet parameters (maximum field, quench performance, field quality, etc.) and their reproducibility using series of short models. Then technology scale up is performed using long coils. The status and main results of the Nb₃Sn accelerator magnet development and superconductor R&D at Fermilab (both LARP and core program) will be presented and discussed.