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Recent Work

Title

Fabrication and testing of a superconducting quadrupole for heavy ion inertial fusion

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Session UP1 - Poster Session IX.

POSTER session, Friday morning, October 31

Fran Hill Southeast Exhibit Hall, ACC

[\[UP1.019\] Fabrication and testing of a superconducting quadrupole for heavy ion inertial fusion](#)

Peter Seidl, Alan Lietzke (LBNL), Robert Manahan, Nicolai Martovetsky (LLNL), Rainer Meinke (Advanced Magnet Lab), Gian Luca Sabbi (LBNL)

A new prototype quadrupole was designed, built and tested for the heavy ion fusion development program. This prototype was built using optimized racetracks, which increased the gradient and reduced the error fields in comparison with earlier versions of such quadrupoles. Design and fabrication features of the quadrupole are presented. Test results showed low training and no degradation of the magnet, good quality of the field, low joint resistance and low sensitivity to the ramp rate.

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