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Magnetic Field R&D for the neutron EDM experiment at TRIUMF[1] RUSSELL R. MAMMEI, The University of Winnipeg — The neutron EDM experiment at TRIUMF aims to constrain the EDM with a precision of 1×10^{-27} e-cm by 2018. The experiment will use a spallation ultracold neutron (UCN) source employing superfluid helium coupled to a room-temperature EDM apparatus. In the previous best experiment, conducted at ILL, effects related to magnetic field homogeneity and instability were found to dominate the systematic error. This presentation will cover our R&D efforts on passive and active magnetic shielding, magnetic field generation within shielded volumes, and precision magnetometry.

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