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NuSOnG: high-precision neutrino scattering at the TeVatron[1]
JAVIER DUARTE, MIT, NUSONG COLLABORATION — A new high-statistics, high-energy neutrino scattering experiment, NuSOnG (Neutrinos Scatting on Glass) has been proposed to study neutrino scattering at high energy with extremlely high precision. I present the conceptual design of the experiment, which allows for probing for new physics at the Terascale. One interaction to which NuSOnG may be sensitive is anomaly-produced photons which results in $\nu + N \rightarrow \nu + N + \gamma$ [2]. A Monte Carlo study of this interaction in the NuSOnG detector exhibits the detector's potential.

[1]MIT Undergraduate Research Opportunities Program
[2]J. A. Harvey, *et. al.*, Phys. Rev. Lett. **99**, 261601 (2007)

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