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SBNfit tools and the search for sterile neutrinos and other beyond-SM physics at SBN GUANQUN GE, Columbia University — The Short Baseline Neutrino (SBN) program comprises three detectors the Short Baseline Near Detector (SBND), MicroBooNE, and ICARUS and promises sensitivity to a variety of new physics that has been proposed in order to explain several perplexing short-baseline neutrino anomalies. This talk will describe ongoing developments to assess SBNs sensitivity to new physics using the SBNfit fitting framework, and also making use of high performance computing. Particular focus will be paid to searches for sterile neutrino oscillations and searches for anomalous single photon production in neutrino interactions at neutrino energies of 0.1-1 GeV.

Guanqun Ge
Columbia University

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