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General Relativistic Instability in Supermassive Objects: Neutrinos and Nuclear Physics CHAD KISHIMOTO, GEORGE FULLER, University of California, San Diego — We discuss the general relativistic instability in very high mass stellar objects. The high entropy electron-positron plasma in these stars serves as an engine for efficient production of neutrinos and antineutrinos of all flavors, with $\sim 5\%$ of the rest mass of the star converted to neutrinos during its collapse to a black hole. We examine the influence of these prodigious neutrino and antineutrino fluxes on the evolution of the nuclear component in these objects.

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