Project X with Rapid Cycling and Dual Storage Superconducting Synchrotrons

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Investigation of neutrino oscillations and rare meson decays are main physics goals of Project X. The successful physics outcome relies on the feasibility of high-intensity neutrino and meson (K+ and \mu) beams. In order to meet this goal we propose accelerator system dominated by the synchrotrons (Option A) as a technologically easier and significantly more cost-effective alternative to the accelerator system dominated by the linear accelerators (Option B). The synchrotron-based accelerator system and its main components are outlined and the expected proton beam power for the neutrino and meson beams production is presented and discussed.

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