

Dear Committee Member,

My field of research is neutrino physics, nucleon decay, and neutron-antineutron oscillations. The Kimballton site offers a possible location for these research to be pursued, and I look forward to work as a member of the Kimballton team to help make this a reality. Possibility of construction of long vertical shafts at Kimballton site will be an important feature that will allow high-sensitivity experimental search for neutron-antineutron transition. Construction of a large  $\sim 100$  kton liquid scintillator detector should allow search for (B–L) violating nucleon decay modes, similar to our present searches in 1-kt KamLAND, that are not accessible with alternative detector techniques (water-Cherenkov and liquid Argon). If proposed Double-Chooz experiment (where I am presently involved in) will measure the  $\theta_{13}$  angle in neutrino mixing to be not very small, then the long-baseline neutrino beam from Fermilab or BNL and 100-kt liquid scintillator detector will provide an exciting possibility to observe for the first time the CP-violation effects with neutrino beams .

I believe that Kimballton laboratory has key capabilities to pursue strong program in Physics, which is aligned with my research interests.

Sincerely,

Yuri A. Kamyshkov

Professor, Department of Physics and Astronomy

University of Tennessee, Knoxville TN 37996-1200