Abstract Submitted
for the APR10 Meeting of
The American Physical Society

Neutrinos and dark matter in the Black Hills MARGARET MCMAHAN NORRIS, BENTLEY SAYLER, Black Hills State University — Where in the U.S. could you walk into a hardware store and be asked about neutrinos? It happens regularly in the Black Hills of South Dakota, where preliminary design is in progress for the Deep Underground Science and Engineering Laboratory (DUSEL), a planned NSF Major Research Experimental Facility Construction (MREFC) initiative to be located at the former Homestake gold mine in Lead, SD. DUSEL has physicists buzzing too, as the particle, astro-, and nuclear physics communities have all identified the need for a new laboratory deep beneath the Earth's surface to address some of the most compelling, transformational science at the frontiers of their disciplines. Elusive particles such as neutrinos and WIMPS (a possible candidate for dark matter) – though they spark the imagination - are equally elusive when trying to explain to students and the public. That will be the task of the Sanford Center for Science Education, planned to be the education arm of DUSEL. Early prototypes of future programs at the education center are now under development, ranging from professional development for teachers to classroom tours to working with American Indian educators. These programs, which are building capacity for the future education center, will be discussed.

Margaret McMahan Norris
Black Hills State University

Date submitted: 23 Oct 2009 Electronic form version 1.4