

Dmitri Tsybychev
SUNY at Stony Brook

Talk on Friday, February 29 at 2:00 p.m., Kolker Room, 26-414

"Looking for new physics in the B_s -meson system"

Abstract: A peculiar and extremely important property of neutral mesons is that they can spontaneously transform themselves into their own antiparticles (and vice versa). One such particle - the neutral B_s meson currently can be studied only at the Fermilab proton-antiproton collider experiments. The D0 experiment at the Fermilab has collected large samples of hadronic and semileptonic decays of B_s mesons, in which comprehensive studies were performed to search for evidence of physics beyond the Standard Model of elementary particle physics. We present the latest results on the measurement of mixing parameter dM_s and the width difference between heavy and light B_s -meson states as well the latest results on indirect CP violation in the B_s meson system at D0.