Session PS4 : Extra Dimensions, Strings, Unified Theories

1- Gregory Landsberg, Brown University, Providence, RI, USA.

Title: Search for Extra Dimensions at the Tevatron and Beyond.

Abstract: Search for large spatial extra dimensions is one of the most exciting new opportunities in our quest for the electroweak symmetry breaking mechanism. Existing high-energy colliders (LEP and Tevatron) have already joined these searches and set constraints on the strength of gravity at short range. New results from the Tevatron collaborations are going to be reviewed. The most interesting opportunities in probing large extra dimensions will become available with the next generation of hadron colliders: the upgraded Tevatron and especially LHC, where the ultimate tests of the new models of gravity will be done. I'll discuss various effects of large extra dimensions that can be seen in the collider experiments, existing limits on the properties of space with large extra dimensions, as well as search strategies and reach of the next generation of hadron machines.

2- Thomas Trefzger, LMU Munich, Sektion Physik, Garching, Germany.

Title: Exotic searches at LEP.

Abstract: exotic searches at LEP (including BEW, indirect limits, contact, Q.G. and search for excited or composite particles ...)

3- George T. Fleming, Ohio State University, Ohio, USA.

Title: Lattice supersymmetry with domain wall fermions.

Abstract: Supersymmetry, like Poincare symmetry, is expected to be softly broken at finite lattice spacing provided the gaugino mass term is strongly suppressed. Domain wall fermions provide the mechanism for suppressing this term by approximately imposing chiral symmetry on the lattice. We present the first numerical simulations of N=1 supersymmetric SU(2) Yang-Mills on the lattice in d=4 dimensions using domain wall fermions.