Abstract Submitted
for the DNP11 Meeting of
The American Physical Society

The onset of proton-neutron correlations in nuclei[1] MIHAI HOROI, Department of Physics, Central Michigan University, Mount Pleasant, MI 48859 — Proton-neutron correlations in nuclei can be explained in part by isosclar and isovector pairing. Shell model techniques reveal additional strong proton-neutron correlations that were recently observed in neutron transfer reactions. I will discuss the pieces of the effective interaction that contribute to these strong correlations. I will also show the the observed 1^+0 and $0+1$ low-lying states in odd-odd nuclei are geometrically favored in the two-body random ensemble model.

[1]Support from NSF grant PHY-0758099 and DOE grant DF-FC02-09ER41584 is acknowledged.

Mihai Horoi
Department of Physics, Central Michigan University,
Mount Pleasant, MI 48859

Date submitted: 01 Jul 2011 Electronic form version 1.4