

Abstract Submitted  
for the 4CF14 Meeting of  
The American Physical Society

**Is There A Preferred Dimensionality in Nature?** CHIN-YAH YEH,  
Utah Valley Univ — When Newton's laws of motion in 1-D are extended to multiple dimensions, we address these questions. Are Kepler's laws valid? What is the significance of Bertrand's theorem? What role does virial theorem play? How are they applied to the hypothetical 4-D situation? It is the virial theorem that is the most telling about our dimensionality. We find that our 3-D world is indeed privileged.

Chin-yah Yeh  
Utah Valley Univ

Date submitted: 05 Sep 2014

Electronic form version 1.4