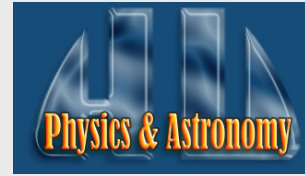


Department of Physics and Astronomy Colloquium



Prof. Tristan Hubsch

Department of Physics & Astronomy,
Howard University

Date: February 8, 2017

Time: 3:30 p.m. (**Refreshments** in **Rm. 103 @ 3:15 p.m.**)

Place: Rm. 103, Thirkiel Hall, Howard University

Host: Prof. Prabhakar Misra

Novel Ricci-Flat Ground States, Part 2

Abstract: Ground states in superstring and other theories with higher-dimensional spacetime are often describable by compact Ricci-flat (Calabi-Yau) geometries. Extensive databases of such well-studied varieties (almost half a billion of them!) exhibit a "mirror symmetry," whereby half of such models are reflections of the other half. In the last <2 years, this already vast collection has been generalized to include zero-sets of Laurent polynomials encoded by certain types of polytopes.

Since last year's report, the "small-distance" modifications required by the quantum nature of these models is now also understood and will be presented.