LARA ANDERSON, Virginia Tech

Heterotic and F-theory Compactifications and Geometry

We systematically analyze a broad class of dual heterotic and F-theory models that give rise to six- and four-dimensional supergravity theories, and compare geometric constraints on the two sides of the duality. In this talk we will demonstrate that both theories together give new insight into the space of possible effective theories arising from string theory. We will describe explicit new results regarding elliptic and K3-fibration structures and string dualities.