

SCHOOL OF MATHEMATICAL & STATISTICAL SCIENCES

COLLOQUIUM SERIES

Manifolds with Special Holonomy

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Abstract

The unification of the four fundamental forces of nature--electromagnetism, gravity, the strong and weak nuclear forces--is one of the greatest unsolved mysteries of physics. Over the last few decades, M-theory, a "theory of everything", has emerged as a candidate for such a unification of these forces.

In this talk we will focus in particular on manifolds with special holonomy, spaces whose infinitesimal symmetries allow them to play a crucial role in M-theory compactifications. We will first give brief introductions to Calabi-Yau and G_2 manifolds and then a survey of my recent research on relations between calibrated geometries and mirror dualities of Calabi-Yau manifolds.

MONDAY, APRIL 8TH

12:15 pm - 1:30 pm

The talk will be held at EMAGC 1.410 at Edinburg campus and will be streamed to BLHSB 1.312 at Brownsville campus.

You can also attend by a zoom link:

<https://utrgv.zoom.us/j/4328553612>

For further information or for special accommodations, please contact:
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