



# PHYSICS AND ASTRONOMY COLLOQUIUM

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## **“Dark Matter and the Search for a Fifth Force”**

### Abstract

The possibility of a fifth fundamental force, corresponding to a new local symmetry and induced by a new force-carrier particle, has been the topic of intense interest at various times in the past several decades. Recently the search for a fifth force has found new motivations from the need to explain dark matter. I will discuss the colorful history of fifth force searches, the connection between new forces and dark matter, the worldwide program now searching for such new forces, and the preliminary, but striking, evidence that a fifth force may already have been seen in an experiment at the boundary of nuclear and particle physics.

Wednesday, February 8, 2017

3:00 p.m.

Elliott Building

Room 167