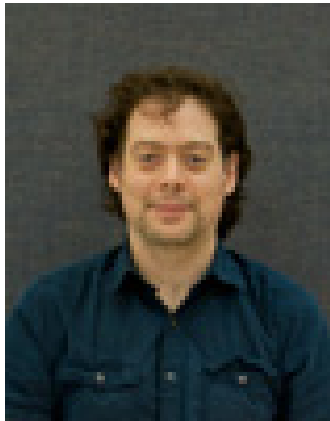




**Department of Physics and Astronomy
Presents**

CAP Lecture

***Looking Beyond the Standard Model
with the Large Hadron Collider (LHC)***



**Dr. Thomas Gregoire
Carleton University**

**Thursday April 5th, 2018
1:40 pm, Room C640, U Hall**

Lecture abstract:

The Standard Model of particle physics is in exquisite agreement with available data. However, for various reasons it is thought to be incomplete. Many questions remain unanswered: The origin of the Higgs mass, the nature of dark matter, the structure of flavour or the asymmetry between matter and anti-matter. Many models have been proposed to explain some of these mysteries: supersymmetry, extra-dimensions of space, composite Higgs, and they are being put to the test at the Large Hadron Collider (LHC), now in operation in Geneva. In this talk I will present the strengths and weakness of these models, discuss what constraints the LHC puts on them, and how they could change our understanding of particle physics and of our universe.

EVERYONE IS WELCOME