

**Tuesday,  
May 1, 2012**

**5:00-6:00 PM**

**General  
Academic  
Building,  
Room 105**

A pre-lecture reception with cookies, coffee and tea will be held at 4:30 PM in the General Academic Building, Room 472 .

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The *RTG in Logic & Dynamics* is a research training group supported by the National Science Foundation and the University of North Texas.

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For UNT campus parking information visit:  
<http://www.unt.edu/transit/>

Simon Thomas is a professor in the Mathematics Department at Rutgers University–New Brunswick. He received his Ph.D. from the University of London in 1983 and joined the Rutgers faculty in 1986, after postdoctoral positions at Freiburg and Yale. His research interests include mathematical logic and group theory. He was an invited speaker at the 2006 International Congress of Mathematicians and the 2011 International Congress of Logic, Methodology and Philosophy of Science.

## **SIMON THOMAS**

RUTGER'S UNIVERSITY–NEW BRUNSWICK



## **THE AUTOMORPHISM TOWER PROBLEM**

If  $G$  is a centerless group, then there is a natural embedding of  $G$  into its automorphism group  $\text{Aut}(G)$  obtained by sending every element to the corresponding inner automorphism. It turns out that  $\text{Aut}(G)$  is also a centerless group and hence we can inductively define the automorphism tower by:  $G, \text{Aut}(G), \text{Aut}(\text{Aut}(G)), \dots$ , etc.

In this talk, I will discuss the question of whether the automorphism tower of every centerless group  $G$  eventually (perhaps transfinitely) reaches a fixed point; i.e. a group  $T$  such that every automorphism of  $T$  is inner.