

# Purdue University

## School of Materials Engineering

### Presents

**Date:** Monday,  
**September 16, 2013**  
**Time:** 3:30 Refreshments  
3:45 Seminar  
**Place:** ARMS 1010



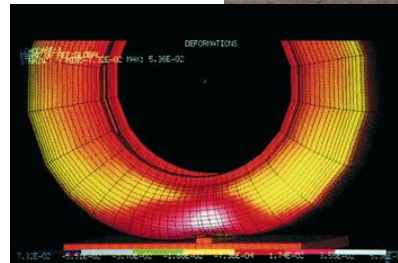
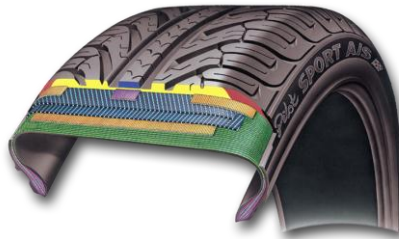
## Infinite Possibilities

**Dr. Dylan Morris**  
**Michelin Americas Research Company**  
**Greenville, South Carolina**

### TIRE PERFORMANCE FROM THE MATERIALS PERSPECTIVE

#### ABSTRACT

Pneumatic tires are the quintessential high-technology composite product, formed from over 200 raw materials and dozens of semi-finished products. Tires are the final link between the tire and road, each contacting the road over a surface area about the size of your hand, and strongly impact safety, handling, noise, comfort and fuel economy – all while enduring millions of high-strain deformation cycles. This presentation will be a general overview of tire technology and tire materials.



#### SHORT BIO

B.S. Chemical Engineering, Colorado School of Mines  
Ph.D. Materials Science, University of Minnesota  
Washington State University, Postdoctoral researcher, 2004-2007, Mechanical and Materials Engineering  
NIST Gaithersburg, Materials Research Engineer 2007-2010, Nanomechanical Properties Group  
I have been at Michelin Americas Research Company in the “physics and mechanisms” group since 2010, working in wear performance research from the tribological perspective.