

Computational Category Theory

National Institute of Standards and Technology

Sept. 28 & 29, 2015

Building 101, Lecture Room D

Sept. 28

- 9:30 **Welcome**
Ram Sriram, NIST
- 9:45 **Structural Mathematics for Complex Systems**
Spencer Breiner, NIST
- 10:30 **(Module signature/type class/trait/theory presentation) combinators**
Jacques Carette, McMaster U.
- 11:15 **Data Landscaping to Support Coordination at Scale**
Peter Gates, Johnson & Johnson
- 12:00 **FQL: A Functorial Query Language**
Ryan Wisnesky, MIT
- 12:45 **Lunch**
- 1:45 **Axiomatic Category Theory for Knowledge Representation**
Henson Graves, Algos Associates
- 2:30 **Set-valued Functors Preserving Structure: Presentations, Computations and Implications**
Michael Johnson, Macquarie U.
- 3:15 **Discussion Session 1**
- 4:15 **Discussion Session 2**

Sept. 29

- 9:30 **Implementing Database Design Categorically**
Bob Rosebrugh, Mount Allison U.
- 10:15 **Horn Clause Logic of Subatomics**
Radhakrishnan Balu, Army Research Lab
- 11:00 **A Categorical Approach to Knowledge Management**
Ralph Wojtowicz, Shepherd U.
- 11:45 **Cateno: An Approach to Computational Category Theory**
Jason Morton, Penn State U.
- 12:30 **Lunch**
- 1:30 **Discussion Session 3**
- 2:30 **Discussion Session 4**
- 3:30 **Wrapping Up**