

# NATIONAL UNIVERSITY OF SINGAPORE

School of Computing

## C S S E M I N A R

**Title:**           **Remaining CALM in declarative networking**

**Speaker:**       Professor Frank Neven  
                  Hasselt University, Belgium

**Date/Time:**   5 June 2015, Friday, 11:00 AM to 01:00 PM

**Venue:**           SR7, COM1-02-07

**Chaired by:**   Dr Wong Lim Soon, KITHCT Chair Professor, School of Computing  
                  (wongls@comp.nus.edu.sg)

### Abstract:

Declarative networking is an approach where distributed computations and networking protocols are modeled and programmed using formalisms based on Datalog. In his keynote speech at PODS 2010, Hellerstein made a number of intriguing conjectures concerning the expressiveness of declarative networking. One of those became popular under the name of the CALM conjecture (Consistency And Logical Monotonicity) and suggests a strong link between, on the one hand, eventually consistent and coordination-free distributed computations, and on the other hand, expressibility in monotonic Datalog. In this keynote, I will discuss recent results concerning the CALM conjecture.

### Biodata:

Frank Neven is a full professor at Hasselt University (Belgium). His main research area is that of database theory and systems. Recent research interests include datamining in bioinformatics, automatic schema inference, big data, cloud computing, and logic in databases.