



THE CHINESE UNIVERSITY OF HONG KONG
Department of Information Engineering

Seminar

**Dynamic Resource Provisioning for
Application Frameworks in Datacenters --
and other Research in the PDS Group in Delft**
by
Professor Dick Epema
Delft University of Technology
The Netherlands

Date : 4 May, 2015 (Monday)
Time : 11:00am – 12:00noon
Venue : Room 833 Ho Sin Hang Engineering Building
The Chinese University of Hong Kong

Abstract

In the past, we have designed and analyzed by means of simulations and real experiments with our KOALA scheduler a wide range of scheduling policies for such application types as parallel applications, bags-of-tasks, and workflows. With increasing cluster sizes, users requiring data and failure isolation, and applications requiring the installation of application frameworks such as MapReduce and many others, we are currently investigating the dynamic, balanced allocation of resources to such frameworks with experimentation through KOALA. In this talk, I will explain the mechanisms and policies for this purpose, and I will present performance results.

In addition, I will give an overview of other recent and current research in the PDS group in Delft (e.g., on workflow and portfolio scheduling, and on P2P systems and Online Social Networks).

Biography

Dick H.J. Epema holds an MSc and a PhD in mathematics from Leiden University, and an MSc in computer science from Delft University of Technology. Currently, he is an associate professor of Computer Science at Delft University of Technology, and a part-time full professor of Decentralized Distributed Systems at Eindhoven University of Technology, both in the Netherlands. His research interests are in resource management and scheduling in clusters and clouds, and in video distribution and reputation mechanisms in peer-to-peer systems and online social networks. His research is centered around the KOALA multicluster scheduler, which has been deployed on the Dutch DAS system, and the BitTorrent-based peer-to-peer system Tribler, which has been downloaded 1,300,000+ times. He was general co-chair of the Euro-Par 2009 and the IEEE P2P 2010 conferences, and general chair of HPDC'12 and CCGrid'13.

**** ALL ARE WELCOME ****