Network Resource Allocation Games

Mr Thanh Nguyen
Centre for Applied Mathematics
Cornell University

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School of Physical and Mathematical Sciences

Resource allocation problems are important in Engineering and Applied Mathematics. With the fast growth of the internet and digital media, resource allocation problems are finding more and more applications including sharing the internet bandwidth and allocating advertisement in digital media. These are complex problems involving selfish behavior of multiple agents in the system.

In this talk, I will introduce a game theoretical framework for these systems and prove a result showing a surprising fact that despite all of the competing forces, some of the very simple mechanisms widely used in practice work very efficiently.

Speaker Biography

Mr Thanh Nguyen is a PhD candidate in Applied Mathematics at Cornell University, USA. His research focuses on network structures: graph theory, combinatorial optimization and games on networks.

Before Cornell, Mr Nguyen finished his undergraduate studies in Mathematics at Eotvos University in Budapest, Hungary.

Host: Prof Chee Yeow Meng, Head, Division of Mathematical Sciences, School of Physical and Mathematical Sciences