



The University of Western Ontario

Faculty of Science

Department of Applied Mathematics

APPLIED MATHEMATICS COLLOQUIUM

Date: Thursday, December 6, 2007

Time: 10:30 am

Location: Middlesex College Room 204

Stability and Congestion Control of the Internet

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Abstract:

The proliferation and universal adoption of the Internet have escalated it as the key information transport platform. This talk considers a model for the Internet that uses additive increase and multiplicative decrease (AIMD) control mechanism. Sufficient conditions for asymptotic stability by using Lyapunov functions and Razumikhin technique are established for both the homogeneous-flows and the heterogeneous-flows.