Dr. Christian Scheideler
Johns Hopkins University

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Theory of Network Communication

Fall 2002

Assignment 5

Problem 13 (4 points)**:**
Show that NTO is universally stable. (Hint: prove by contradiction that there cannot be a packet that needs more than $\sum_{i=1}^{d}(w+1)/\epsilon^i$ steps to traverse d edges along its path, using a proof very similar to SIS.)

Problem 14 (4 points)**:**
Show that for $\lambda \geq 0.76$ there is a network and an adversary that causes NTG to be unstable. (Hint: use the same strategy as for FIFO.)