

# Trading loss against delay in Networked Control Systems

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6. June 2011

## **Abstract**

Due to the steady progression in communication and computation technologies, more and more control loops are closed over a shared communication system. For these Networked Control Systems (NCS) the requirements on the communication system are very different from classical applications like, e.g., file transfer or remote login. In order to become widely accepted, these NCS must be well understood. Although, they are well studied in the control literature, their specific requirements are not yet supported in communication systems. Thus, we show how the performance of an event-triggered integrator system depends on packet loss and delay. By showing how loss can be traded against delay, we hope to assist the appearance of new protocols, well suited for NCS.