

# **A Darker BitTorrent**

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# 1 Aim

To be able to lie, cheat and steal <ahem> publish and retrieve content without recrimination.

## 2 Performance modelling

Modelled in PEPA, a Stochastic Process Algebra, to make a Markovian model which we solve for transient distribution, using IPC and Hydra, for how long it takes to download a piece of content.

Contrast with fluid model studied at steady-state due to Qiu and Srikant of Uni of Illinois.

### **3 What's darkness?**

Recovering anonymity. Apparently indistinguishable from doing *something else*.

## 4 Problems

### How can we do it?

**Redirection** Crowds et al

**Steganography**

**Publish, publish, publish**

### How can we be stopped?

**Bandwidth** Take our bits away

**Seizure** Take our boxes away

## 5 Links

<<http://logicwand.com/darktorrent/>>

<<http://aesop.doc.ic.ac.uk/>>

<<http://www.dcs.ed.ac.uk/pepa/>>

<<http://www.doc.ic.ac.uk/pasta2004>>