

# Nagysebességű hálózati adatok modellezése: Lévy flights és temperált stabilis eloszlások illesztése

Terdik György  
DE, IK, Inf. Tech. Tanszék

2006 nov. 23.

We start with the problem of analyzing high speed network data. OC48 backbone traces were taken on CAIDA monitor located at a SONET OC48 (2.5 Gbps) link that belongs to MFN, a US Tier 1 Internet Service Provider (ISP). The nominal resolution of the timestamp is 15ns. The largest source of uncertainty is the interpretation of time differences under  $1\mu\text{s}$ . The traffic is monitored in both directions. The captured packet traces contain 44 bytes of each packet, enough to include the IP and TCP/UDP headers. We analyzed different backbone traces captured in April 24, 2003 (1 hour, around 45G byte data for both direction).

A tool we apply is a class of tempered stable distributions, it has in infinite-dimensional parametrization by a family of measures, which makes their fitting to real data a difficult task. For this reason, we embark in this paper on a fairly pedestrian project of developing a series of parametric models that fit into the general framework of tempered distributions but for which parametric statistical estimation procedures can be realistically developed. The emphasis is on obtaining explicit analytic formulas and on explicit calculations.

Some reference of interest: [MS94], [Kop95], [Ros04], [Ros02], [TWP06], [TW06], [TG06].

## References

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