# Heavy tail analysis and network modeling

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Data networks can be analyzed at large time scales (Mikosch et al., 2002; Resnick, 2006) or small time scales (D'Auria and Resnick, 2006, 2007) with time scaling either approaching infinity or 0. One can try to characterize multi-user input traffic or single user inputs (Mikosch and Resnick, 2006). Tails of payload per session can be heavy with Pareto parameter in the interval (1, 2) as in Mikosch et al. (2002) or D'Auria and Resnick (2006, 2007) or even so heavy that the mean is infinite as in Mikosch and Resnick (2006) and Resnick and Rootzen (2000). One sees the impact of stable and Levy processes in various ways in all these circumstances depending on interaction of heavy tails and input rates.

**References**

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