Exercise No. 1

Peer-To-Peer Networks

Winter 2016

Exercise 1 Name three Peer-to-Peer networks in the wild and give a detailed description.

Exercise 2 Calculate the expectation, variance, second and third moment of a Pareto distribution where

- 1. $\alpha = 1.5$,
- 2. $\alpha = 2.5$,
- 3. $\alpha = 3.5$.

Exercise 3 Give other examples of Pareto, Zipf, or power distributed natural or social phenomena. What is the exponent α ? Compare it with those examples presented in the lecture and explain the differences.