

A Poisson cluster model for high frequency arrivals

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This model is used in teletraffic. A major activity starts (arrival of a package in teletraffic, arrival of a major economic player) at the points of a Poisson process. The activities overlap. From the observation one cannot say where the activity comes from (which player, which package). Depending on the magnitude of the started activities, one can get long or short range dependent phenomena. The integrated activities (workload) can be shown to have self-similar limits.

The talk is based on joint work with Gilles Fäy, Bárbara González-Arávalo and Gennady Samorodnitsky, see www.math.ku.dk/~mikosch/Preprint/Tele/cluster.pdf.