Algorithms for the Analysis of Interaction Streams

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Many data coming from various contexts can naturally be modelled as a stream of temporal interactions: banking transactions, email exchanges, meetings among people, ...
The streamgraph formalism allows to represent these interaction streams and extends metrics coming in particular from graph theory to allow their description.
In this class, we will describe the formalism, then we will focus on some of these notions, in particular those linked to centrality, which aims at quantifying the nodes' importance. We will also study the algorithmic questions raised by the computation of these notions on large datasets.