Assignments $\mathcal{N}^{\underline{o}}$ 0

released: 24.10.2012   **due:** 30.10.2012, 10AM
You are permitted and encouraged to work in groups of two.
We do not tolerate plagiarism: copy & paste solutions will be rejected!

Task 1: Uniform Random Graph Model   2 points

Assume we have drawn a random graph from the uniform random graph model on the set of all *directed*, loopless graphs with n vertices. What is the probability that this graph has exactly m edges?

Task 2: Edge Probabilities   4 points

Define at least four different random graph models on the set of undirected, loopless graphs with 3 vertices, such that each random graph model yields uniform edge probabilities of $\frac{1}{5}$.

Task 3: visone   0 points

Download the current version of visone at `http://visone.info` and give it a test run — make sure that Sun Java Runtime Environment (JRE) 6 (or newer) is installed on your computer.

An introduction to visone will be provided in the first tutorial meeting. If you like to participate actively, then also download the data that is linked from the lecture homepage and bring your laptop to the tutorial session.