

# Lab: Continuous time Markov chains

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MOOC: Understanding queues

Python simulations

Week IV: Continuous time Markov chains

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In this lab, we focus on the simulation of continuous time Markov chains. In the lab of week 2 we have simulated a M/M/1 queue. This week, we are going to study a M/M/1/K queue to illustrate the effect of a finite buffer length. We will compute the loss probability in this model and observe the influence of the load  $\rho$  when the capacity  $K$  is large.

The notebook containing the lab of week 4 is available here: [notebook](#)

The pdf version of the lab of week 4 is available here: [pdf version of the notebook](#)