Estimation of Hidden Markov Model steady-state
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Abstract

In this work, we interest to the estimation of the steady-state probabilities of the two processes (the hidden Markov chain and the emission process) composing a standard Hidden Markov Model. Since estimation of steady-state Markov chain is well known, more attention will be given to the estimation of the steady-state of the emission process. Among different methods, we will focus more on the technique based on the regenerative notion, often used in steady-state Markov chain simulation. Numerical Monte Carlo simulations are carried to show the usefulness of our proposal and to appreciate the quality of different proposed estimators.

Joint work with Abdelaziz Nasroallah.