

On behavior of stochastic synchronization models

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Abstract

There exist many popular physical systems describing different synchronization phenomena (coupled oscillators, Kuramoto model, etc.). Stochastic synchronization models considered in the present talk are mainly motivated by computer science applications. Their dynamics is different from dynamics of the above mentioned physical systems and is based on special synchronization-like interactions between components. We discuss behavior of stochastic synchronization models in different limit situations: when the number of components is large and/or when the time is large.