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Hans G Othmer* (othmer@math.umn.edu), School of Mathematics, University of Minnesota, 206 Church St S E, Minneapolis, MN 55455. *Multi-scale analysis of stochastic reaction networks*. Preliminary report.

In many complex reaction networks the reactions occur on vastly different time scales, but the usual form of the evolution equations does not lend itself to identification of slow and fast variables. In this talk we first show how they can be identified in deterministic systems, and we then discuss recent work on stochastic multi-scale analysis of reaction networks. (Received August 23, 2010)