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**Hans G Othmer\*** ([othmer@math.umn.edu](mailto:othmer@math.umn.edu)), School of Mathematics, University of Minnesota, 270 Vincent Hall, Minneapolis, MN 55455. *Multi-scale analysis of chemical 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 show how they can be identified in deterministic systems and we will discuss recent work on stochastic multi-scale analysis of reaction networks. (Received February 16, 2010)