

# Some Good Old But Sometimes Neglected Aspects in Numerical Parameter Estimation

P.W. Hemker

In this talk we explain some numerical aspects of nonlinear parameter identification in dynamical systems. The systems considered mainly arise from (bio-) chemistry.

In particular we will focus on the sensitivity of the system of differential-algebraic equations on the parameters, and on the use of the Singular Value Decomposition (SVD) of the sensitivity matrix. This SVD is not only useful from a numerical point of view, but it can also be used to help understanding the numerical results obtained when a least squares solution is finally found.