Prof. J.M Sanz-Serna (University of Valladolid, Spain) will present a seminar intitled:

"Averaging, old and new"

Abstract:
I shall begin by reviewing the main ideas behind the method of averaging to study rapidly oscillatory dynamical systems. Then I shall present a new way of finding explicitly high-order averaged systems (joint work with A. Murua and P. Chartier). The new approach originated in the graph-theoretic/combinatorial techniques used nowadays to analyze numerical integrators and is also useful in the derivation of error estimates.

Lausanne, 25 April 2012/AA /vl