

113. Zvi Artstein, **Averaging of ordinary differential equations with slowly varying averages**. Discrete and Continuous Dynamical Systems, Series B, 14 (2010), 353-365.

Abstract. The averaging method asserts that a good approximation to the solution of a time varying ordinary differential equation with small amplitude is the solution of the averaged equation, and that the error is maintained small on a long time interval. We establish a similar result allowing the averaged equation to vary in time, thus allowing slowly varying averages of the original equation. Both the modeling issue and the estimation of the resulting errors are addressed.

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