Estimation of solutions to a particular class of ODE systems
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We propose a semiparametric study of a particular class of periodic regression functions observed with random error. The functions are assumed to be solutions to planar ODE systems which admit closed orbits. We illustrate and study the proposed method as it applies to the Lotka-Volterra model of the interaction between predator and prey populations. Theoretical and practical issues are addressed, as well as avenues for further developments. This is joint work with Gino Colavita.

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