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TOCSY - Toolboxes for modelling of dynamical systems and time series

Wessel N[1], Marwan N[2], Krämer JF[1], Kurths J[1,2], et al.

[1]Department of Physics, Humboldt-Universität zu Berlin, Germany
[2]Transdisciplinary Concepts and Methods, Potsdam Institute for Climate Impact Research, Germany
tocsy@agnld.uni-potsdam.de

Abstract: *With Toolboxes for Complex Systems we provide a compilation of innovative methods for modern nonlinear data analysis and modelling. These methods were developed during scientific research in the Interdisciplinary Center for Dynamics of Complex Systems Potsdam, the Humboldt-Universität zu Berlin and the Potsdam Institute for Climate Impact Research (PIK). It provides analysis tools for recurrence quantification analysis, nonlinear regression analysis, innovative filtering and processing of physiological data, coupling direction estimations, wavelet spectrum and coherence analysis, time series graph estimation and more.*

Keywords: *nonlinear data analysis, modelling, coupling directions, recurrence plot, wavelets*

Introduction

The methods provided in TOCSY (**TO**olboxes for **C**omplex **Sy**stems) were developed during scientific research in the Interdisciplinary Center for Dynamics of Complex Systems Potsdam, the Humboldt-Universität zu Berlin and the Potsdam Institute for Climate Impact Research (PIK). The content is purely scientific and support may be provided by the respective authors. We ask you to cite the corresponding publication and the web site if you make use of our offer.

Methods

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