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Regressions involving circular variables: an overview. (English) [Zbl 1420.62287]


Summary: The last 40 years have seen a vigorous development of regression analysis involving circular data. A large body of results and techniques is now disseminated throughout the literature. In this paper, we provide a review of the literature on regressions involving circular variables that will be useful as a unified and up-to-date account of these methods for practical use. Examples and theoretical details are referred to corresponding papers herein, and omitted in our paper. Some of future topics of interest are also provided. Bayesian and non-parametric regression models involving a circular variable(s) are not included in this paper and will appear elsewhere.

For the entire collection see [Zbl 1401.62011].

MSC:
62J02 General nonlinear regression
62G08 Nonparametric regression and quantile regression

Keywords:
circular-circular regression; circular-linear regression; multiple circular regression; linear-circular regression; asymmetric generalized von Mises distribution

Software:
CircStats

Full Text: DOI