

Covariance-Invariant Mapping of Data Points to Nonlinear Models

Wolfgang Grimm¹

¹Independent Research and Consulting

November 26, 2021

Abstract

A centroid- and covariance-invariant deterministic mapping of sets of discrete data points to nonlinear models is introduced. Conditions for bijectivity of this mapping are developed. Since the mapping can be accomplished by look-up tables for the special case of equally-spaced data, the resulting mapping algorithm is considered computationally fast. This could be attractive for real-time operations.

Hosted file

Covariance-Invariant Mapping of Data Points to Nonlinear Models.pdf available at <https://authorea.com/users/448083/articles/546959-covariance-invariant-mapping-of-data-points-to-nonlinear-models>