

Uni-Mode Uniqueness Conditions for Candecomp/Parafac of N-Way Arrays with Linearly Dependent Loadings

Authors : Ling Zhang, Weikai Li

Abstract : Recently three sufficient conditions for the three-way Candecomp/Parafac (CP) model which ensure uniqueness in one of the three modes("uni-mode uniqueness") are given. In this paper, we generalize these uniqueness conditions to $n \leq 3$ and give a sufficient conditions for the n-way Candecomp/Parafac (CP) model, which ensure uniqueness in one of the n modes.

Keywords : uni-mode uniqueness, candecomp/parafac, n-way arrays, decomposition, tensor

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020