CENTRE
DE RECHERCHES
MATHÉMATIQUES

Tenseurs : information quantique, complexité et combinatoires quantiques

Tensors: Quantum Information, Complexity and Combinatorics

David Pérez-García
(Universidad Complutense de Madrid)

A canonical form for tensor networks

I will show how geometric invariant theory helps to define a canonical form for arbitrary tensor networks, which we call the minimal canonical form. Somehow surprisingly, the construction also gives a new canonical form for Matrix Product States. I will comment on some potential applications, in particular to enhance privacy in tensor-network based machine learning.