

Web of Science

Full Text from Publisher | Look Up Full Text | Save to EndNote online | Add to Marked List

320 of 499

Nonlocality in pure and mixed n-qubit X states

By: [Batle, J](#) (Batle, J.)^[1]; [Ooi, CHR](#) (Ooi, C. H. Raymond)^[2]; [Farouk, A](#) (Farouk, Ahmed)^[3]; [Abdalla, S](#) (Abdalla, S.)^[4]
[View ResearcherID and ORCID](#)

QUANTUM INFORMATION PROCESSING
Volume: 15 **Issue:** 4 **Pages:** 1553-1567
DOI: 10.1007/s11128-015-1216-5
Published: APR 2016
[View Journal Impact](#)

Abstract

Nonlocality for general multiqubit X states is studied in detail. Pure and mixed states are analyzed as far as their maximum amount of nonlocality is concerned, and analytic results are obtained for important families of these states. The particular form of nonzero diagonal and antidiagonal matrix elements makes the corresponding study easy enough to obtain exact results. We also provide a numerical recipe to randomly generate an important family of X states endowed with a given degree of mixture.

Keywords

Author Keywords: Nonlocality; X-Qubit states; Multipartite correlations
KeyWords Plus: BELL-INEQUALITY; ENTANGLEMENT; VIOLATION; DECOHERENCE

Author Information

Reprint Address: Batle, J (reprint author)
 + Univ Illes Balears, Dept Fis, Palma De Mallorca 07122, Balearic Island, Spain.
Addresses:
 + [1] Univ Illes Balears, Dept Fis, Palma De Mallorca 07122, Balearic Island, Spain
 + [2] Univ Malaya, Dept Phys, Kuala Lumpur 50603, Malaysia
 [3] Al Zahra Coll Women, Dept Informat Technol, POB 3365, Muscat, Oman
 + [4] King Abdulaziz Univ, Fac Sci, Dept Phys, POB 80203, Jeddah 21589, Saudi Arabia
E-mail Addresses: jbv276@uib.es

Funding

Funding Agency	Grant Number
High Impact Research MoE Grant from the Ministry of Education Malaysia	UM.C/625/1/HIR/MoE/CHAN/04

[View funding text](#)

Publisher

SPRINGER, 233 SPRING ST, NEW YORK, NY 10013 USA

Categories / Classification

Research Areas: Physics
Web of Science Categories: Physics, Multidisciplinary; Physics, Mathematical

Document Information

Document Type: Article

Citation Network

1 Times Cited
 42 Cited References
[View Related Records](#)
[Create Citation Alert](#)
(data from Web of Science Core Collection)

All Times Cited Counts
 1 in All Databases
 1 in Web of Science Core Collection
 0 in BIOSIS Citation Index
 0 in Chinese Science Citation Database
 0 in Data Citation Index
 0 in Russian Science Citation Index
 0 in SciELO Citation Index

Usage Count
 Last 180 Days: 1
 Since 2013: 2
[Learn more](#)

Most Recent Citation
[Ameen, El-Mahdy M. Towards Implementation of a Generalized Architecture for High-Level Quantum Programming Language . INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS, AUG 2017.](#)
[View All](#)

This record is from:
Web of Science Core Collection
 - Science Citation Index Expanded

Suggest a correction
 If you would like to improve the quality of the data in this record, please [suggest a correction](#).

Language: English

Accession Number: WOS:000373860400014

ISSN: 1570-0755

eISSN: 1573-1332

Journal Information

Table of Contents: [Current Contents Connect](#)

Impact Factor: [Journal Citation Reports](#)

Other Information

IDS Number: DI9ZE

Cited References in Web of Science Core Collection: **42**

Times Cited in Web of Science Core Collection: **1**

