## 2016 CAP Congress / Congrès de l'ACP 2016



Contribution ID: 1112

Type: Poster (Non-Student) / affiche (non-étudiant)

## On a minimal set of separable measurements for a pure state determination in a two-qubit system.

Tuesday 14 June 2016 19:02 (2 minutes)

On a minimal set of separable measurements for a pure state determination in a two-qubit system. I.D. Ivanovic, Department of Physics, Carleton University

In this note I will address the problem of minimum set of separable measurements necessary to determine a pure s

 $\{\sigma_x \otimes I, \sigma_y \otimes \sigma_x, \sigma_y \otimes \sigma_y, \sigma_y \otimes \sigma_z, \sigma_z \otimes \sigma_x, \sigma_z \otimes \sigma_z, \sigma_z \otimes \sigma_z\}$ does not. It is shown, by construction, that this particular choice of operators is inadequate. Some other possible solutions are discussed. Email: igor@physics.carleton.ca

References:

 I.D. Ivanovic, in CISM Courses and lectures No.294 Proceedings of "Information complexity and control in quantum physics", Editors Blaquiere et al –Udine,1985, Springer Verlag 1987, p 67-76.
W. K. Wooters and B. D. Fields, Ann. Phys (NY) 191 (189) p.363
Adamson R B A and A M. Steinberg arxiv: 0808.0944v4[quant-ph]

[3] Adamson R.B.A and A.M. Steinberg arxiv: 0808.0944v4[quant-ph]

[4] Chapman R. J. et al arxiv:1602.04194v1[quant-ph]

[5] Xian Ma, et al arXiv: 1601.05379v1 [quant-ph]

Author: Dr IVANOVIC, Igor (Carleton University)

Presenter: Dr IVANOVIC, Igor (Carleton University)

Session Classification: DAMOPC Poster Session with beer / Session d'affiches avec bière DPAMPC

**Track Classification:** Division of Atomic, Molecular and Optical Physics, Canada / Division de la physique atomique, moléculaire et photonique, Canada (DAMOPC-DPAMPC)