Macroscopic quantum games (or how to play a quantum game with a pack of 10 cards)

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Abstract

After a short introduction to the theory of quantum games we show that it is possible to play 'restricted' two-players quantum games proposed originally by Marinatto and Weber by purely macroscopic means, in the simplest case having as the only equipment a pack of 10 cards. Our example shows also that some apparently 'genuine quantum' results, even those that emerge as a consequence of dealing with entangled states, can be obtained by suitable application of Kolmogorovian probability calculus and secondary-school mathematics, without application of the 'Hilbert space machinery'.