

Abstract Submitted  
for the MAR06 Meeting of  
The American Physical Society

**Statistical performance of ensemble quantum computers in search algorithms** DAVID COLLINS, TOMASZ KOTT, Physics and Astronomy Department, Bucknell University — We consider the statistical performance of ensemble quantum computers applied to search algorithms. In particular we consider algorithms implemented on pseudo pure initial states and determine the initial polarization required so that the quantum algorithm outperforms classical probabilistic competitors in terms of failure probabilities.

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Date submitted: 12 Jan 2006

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