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TITLE:
Towards feasible distillation of continuous-variable entanglement

ABSTRACT:

"In this talk a procedure will be presented that is capable of distilling Gaussian two-mode states from a supply of weakly entangled mixed states. This procedure makes use of passive optical elements and photon detectors only, the latter distinguishing the presence and the absence of photons. On the one hand abstract issues of identifying the fixed points of the iteration map and its convergence properties will be considered. In particular, necessary and sufficient criteria for convergence to a pure Gaussian state will be presented. On the other hand, practical issues related to an actual implementation of such a procedure will be discussed, assuming non-unit detection efficiencies. The use of this method as a starting point for quantum key distribution will be outlined."