

Report: Quiprocone funding application 030
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In this report I give a short summary about my visit in the group of Prof. Ignacio Cirac in the Max Planck Institute in Garching near Munich from 16.-18. June 2002. This visit was funded by Quiprocone.

The aim of my visit was to discuss with Ignacio Cirac and Geza Giedke about the open problems concerning the characterization of entanglement in infinite dimensions. In the infinite dimensional case the class of so called Gaussian states (i.e. the states with a gaussian characteristic function) is of great importance. These states are described by a special matrix, the so called correlation matrix.

During the discussions with Geza Giedke we investigated tripartite systems with one mode for each party. We tried to find a form for the correlation matrix which is as simple as possible. The idea is to achieve a better understanding of three party entanglement for pure Gaussian states. This work is still going on.

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