

Area Seminar

Title Non-interferometric measurement of Pancharatnam phase

Date and Time 13/08/2014 11:00:00

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PRL

Area Theoretical Physics

Venue Room No. 469

Pancharatnam phase is so called geometrical phase in optics associated with the polarized light. When a polarized light evolves on the Poincare sphere, its initial and final state acquire a phase difference, even though it comes back to its initial state, which is purely a geometrical consequence of the evolution of the state on the Poincare sphere.

Abstract Pancharatnam found that for the cyclic evolution the phase difference will be half of the solid angle subtended by the closed path during the evolution. In general interference between the initial and final state is used to measure the Pancharatnam phase. In this talk I will discuss about non-interferometric way of measuring the Pancharatnam phase. Further it can be extended to measure non-cyclic evolution of the initial state.