Dariusz Chruscinski

Title: Divisibility and information flow for non-invertible dynamical maps

Abstract:

I provide the relation between CP-divisibility and the lack of information backflow for an arbitrary -- not necessarily invertible -- dynamical map. It is well known that CP-divisibility always implies lack of information back flow. Moreover, these two notions are equivalent for invertible maps. In this talk I show that for a map which is not invertible the lack of information back flow always implies the existence of completely positive (CP) propagator which, however, needs not be trace-preserving.