**Complete classification of steerability under local filters and its relation with measurement incompatibility**

Shin-Liang Chen

Department of Physics, NCHU

In this talk, I will give a summary of our recent work on the relation between the distillation, conversion, and classification of steerable quantum states. In a distillation protocol, one is interested in the maximal amount of steerability that can be distilled given a steerable state. For conversion, one asks if the distilled steerable state can be converted back to the original state. In the classification scheme, the steerable states are classified into different types according to the so-called "steering-equivalent observables". We show that the problem of convertibility and classification are equivalent. Besides, we use this result to obtain the maximal amount of steerability that can be distilled and the associated optimal local filter.