茨城大学セミナー（6/14 火）

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日時： 2016/6/14 17:00-18:00

場所： E-301

Title： The complex Langevin approach to the matrix model with the spontaneous rotational symmetry breaking

Abstract：In the recent studies on the complex Langevin method (CLM), certain criteria for justifying the method were suggested, which enables us to obtain correct results in finite QCD. In this talk, we consider the matrix model having the rotational SO(4) symmetry. This model has the sign problem due to the fermion determinant which invokes the spontaneous breaking of the SO(4) symmetry. In terms of the suggested criteria, the fermion determinant will also give rise to the issue making the CLM fail. Therefore, we have proposed a procedure to solve the issue according to the criteria, and we have shown that the SO(4) is actually spontaneously broken down to SO(2) using the CLM.