



東工大 基礎・物性物理学専攻「物理学リーダーシップ」
FGIP: Foreign Graduate Student Invitation Program
外国人博士課程大学院生の短期招待・共同研究
FGIP-Student Forum セミナー

Francis Norman Paraan

(State University of New York, Stony Brook, Phillipine)

日時: 2011年3月29日(火) 15時~16時30分

場所: 本館2階H284A室

'Some aspects of the one-dimensional interacting boson gas'

- Abstract:** In this talk we discuss two recent results involving a one-dimensional boson gas with contact interactions as modeled by the Lieb-Liniger hamiltonian. First, we present a perturbation calculation for the ground state energy and chemical potential of such a gas in the presence of longitudinal harmonic confinement about the impenetrable boson limit. This result is compared to that obtained from the Thomas-Fermi formalism. Second, we quantify the amount of entanglement that can be extracted by certain coarse-grained measurements on the ground state of this gas when it is confined in a ring. We demonstrate that the amount of entanglement in these projections increases monotonically with interparticle repulsion strength.



教員、修士課程大学院生の参加も歓迎します。 担当 鹿野 豊(内線 3893)

FGIP-Guest student の滞在スケジュール

名前	大学	滞在期間	受入担当氏名
Francis N.C. Paraan	State University of New York, Stony Brook (Phillippine)	3/17-3/31	鹿野