



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**

**Alberto Remoto** (Subatech /APC, France)

日時: 2012年 2月 13日 (月) 17:00 ~ 19:00

場所: 本館H284A号室



Towards  $\theta_{13}$  with  
 the Double Chooz detector

**Abstract:**The Double Chooz experiment using  $\bar{\nu}_e$  emitted from the Chooz nuclear power plant (Ardennes, France), aims to measure the last unknown oscillation mixing parameter  $\theta_{13}$ . Two detectors at different baseline are expected to be used to precisely measure the disappearance of  $\bar{\nu}_e$ . The Far detector is taking regular data since April 2011 while the Near detector is under construction. The first 100 days of data from the Far detector were analyzed and an indication for neutrino disappearance, consistent with neutrino oscillation hypothesis, has been found. The best fit value is  $\sin^2(2\theta_{13}) = 0.086 \pm 0.041$  (stat)  $\pm 0.030$  (syst). The seminar will cover a general overview of my background from the personal and professional point of view and of the activity developed during my Ph.D. within the Double Chooz collaboration. The main focus of the seminar will be on the analysis I'm currently carrying out on estimation of the Fast Neutron background, one of the main background to the selection of the final Neutrino signal.

教員、修士課程大学院生の参加も歓迎します。 担当 今野智之(内線 2722)

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
Can Kadir Utku	Middle East Technical University (トルコ)	1/30 - 2/25	内野俊隆
Yavas Özlem	Bikent University (トルコ)	1/30 - 2/25	田原弘量
REMOTO. Alberto	Subatech /APC (フランス)	2/1 - 2/17	今野智之