

JUSTIPEN exit report
Jimmy Rotureau

I was in Japan under the JUSTIPEN agreement from June 1 to June 21, 2007. During my stay I had discussions with other visitors on topics in nuclear structure theory. I discussed and exchanged ideas with Nicolas Michel, who is currently a post doctorate at the University of Kyoto. More precisely, we discussed the problem of center of mass motion in the Gamow Shell Model and a prescription to get rid of the spurious states. During my stay at Riken, I gave a seminar on *Shell Model Approach for Many-body Open Quantum systems*. This talk gave the opportunity to present the projects I have been working on to the people from Riken and the JUSTIPEN visitors. Besides my stay at Riken, I participated in two meetings outside Wako-Shi. I attended the International Nuclear Physics Conference (INPC 07) in Tokyo where I gave a 15 minutes presentation on *Density Matrix Renormalization Group approach for open quantum systems*. From June 11-14, I attended the workshop *Nuclear Structure 07* at the Yukawa Institute for Theoretical Physics in Kyoto during which I had discussions about the project I've been developing related to the implementation of the Density Matrix Renormalization Group procedure in the context of the Gamow Shell.

I would like to gratefully acknowledge the excellent working and living conditions I experienced during my stay at RIKEN under the JUSTIPEN agreement.