

FUSTIPEN EXIT REPORT

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I visited GANIL from March 11, 2014 to March 21, 2014. During this time we worked with Marek Ploszajczak and Nicolas Michel on No-Core Gamow Shell Model approach, establishing a strategy for future calculations. The discussions were joined later on by Bruce Barrett, Jimmy Rotureau and Christian Forssen. I especially worked on the calculation of the second 0^+ excited state in 4He and how to tackle its possible contamination by spurious center of mass motion.

During my visit at GANIL I also participated at the workshop “Understanding nuclear structure and reactions microscopically, including the continuum” from 17 to 21 of March where I presented a talk with my recent research results. The workshop was very well organized and the talks that delivered by the participants were excellent. The audience was very broad covering research areas ranging from studies of the underlying nucleon-nucleon force to many-body techniques as they are applied to light and heavy nuclei for either structure or reactions studies, and also experiment. It was a great experience for me and I am looking forward to attending this year as well.

Overall, my visit in GANIL was successful and joyful. The work with my collaborators was productive and we are expecting a publication soon based on the work that took place during my visit. I also really enjoyed the workshop that took place in GANIL; I learned new things and I had fruitful discussions with many of the participants.