

## Ionel Stetcu

RE : Exit report for FUSTIPEN-supported trip.

Dates leave March 09, 2015; return March 21, 2015.

The purpose of this trip was twofold

- 1) to explore a collaboration with U. van Kolck, located at the INP Orsay;
- 2) to participate in a FUSTIPEN-funded workshop at GANIL.

I have visited IPN Orsay and presented a seminar in the nuclear theory group, which gave me the opportunity to have discussions not only with my host, but also with Denis Lacroix and Marcella Grasso. In particular, I have discussed about the time-dependent density functional approach to fission and various technical details.

The discussions with U. van Kolck have also proved successful with a real possibility to develop a collaboration. We have discussed, as proposed, about the physics of lightly bound nuclei, and in more details about a EFT approach to heavy nuclei. We have written a LO and NLO Lagrangian applicable to heavy nuclei. We will implement the method numerically and test its applicability. We hope that we will be able to publish the results in the future.

At GANIL, I have participated in the workshop “New directions for nuclear structure and reaction theories”. In addition to my talk, I contributed to the general discussions. I have also continued the discussion with U. van Kolck regarding our project started in Orsay, and talked extensively with B. Barrett, G. Orlandini, G. Papadimitriou and G. Hupin.

I believe the trip was a success and it will be followed by interesting concrete results.