



# PRE - PAC WORKSHOP OF AGATA@LNL

INFN, LABORATORI NAZIONALI DI LEGNARO  
MAY 13-14, 2024

## SCIENTIFIC PROGRAMME

### Monday, May 13<sup>th</sup>, 2024

- 13:00 - 14:00 **Registration**
- 14:00 - 14:10 **Welcome Address** 10'
- Speaker: Faiçal Azaiez (INFN LNL Director)
- 14:10 - 15:50 **Session: AGATA at LNL**
- 14:10 – 14:40 **Accelerator Status** 30'
- Speaker: Enrico Fagotti
- 14:40 – 15:00 **EXOTIC Status and proposed commissioning** 20'
- Speaker: Sara Pigliapoco
- 15:00 – 15:20 **Status of the campaign** 20'
- Speaker: Jose Javier Valiente Dobón
- 15:20 – 15:40 **Overviews of the Lols for the 5<sup>th</sup> Pre-PAC** 20'
- Speaker: Magda Zielińska
- 15:40 – 15:50 **EURO-LABS support** 10'
- Speaker: Tommaso Marchi
- 15:50 - 16:20 **Coffee break**
- 16:20 – 18.00 **Session: Lol 1**
- 16:20 **Shape coexistence in  $^{82}\text{Se}$  and its relevance in the  $^{82}\text{Se} \rightarrow ^{82}\text{Kr} 0\nu\beta\beta$  decay** 20'
- Speaker: N. Sensharma (via zoom)
- 16:40 **Nuclear Shape Coexistence in the  $0\nu\beta\beta$  Parent  $^{116}\text{Cd}$**  20'
- Speaker: M. Siciliano (via zoom)
- 17:00 **Development of Self-calibration technique for AGATA via Coulomb excitation** 20'
- Speaker: S. Chen (via zoom)

17:20 **Study of Shape coexistence and Triaxial deformation in Cr isotopes via lifetime measurements** 20'

Speaker: J. Pellumaj

17:40 **Search for the  $\gamma$  decay of the narrow near-threshold resonance in  $^{11}\text{B}$**  20'

Speaker: G. Corbari

20:00 Dinner

## Tuesday, May 14<sup>th</sup>, 2023

9:30 - 11:10 **Session: Lol 2**

9:30 **Direct measurement of quadrupole and octupole deformation of  $0\nu\beta\beta$  candidate daughter  $^{150}\text{Sm}$  via Coulomb excitation** 20'

Speaker: E. Wang (via zoom)

9:50 **Superallowed  $^{10}\text{C}$   $\beta$ -decay branching ratio measurement with high-count rate: a revised edition of Exp. 22.72** 20'

Speaker: Y. Son (via zoom)

10:10 **Colossal Mirror Energy Differences at  $A=36$ : quest for the  $0^+_{3}$  state in  $^{36}\text{S}$**  20'

Speaker: L. Zago

10:30 **Understanding nuclear isospin by means of the Isobaric Analogue State and the Isobaric Anti Analogue State around  $A\sim 60$**  20'

Speaker: P. Aguilera

10:50 **At-rest (near)Yrast spectroscopy in the  $^{78}\text{Ni}$  region with the deuteron induced fission of  $^{238}\text{U}$**  20'

Speaker: F. Didierjean

11:10 – 11:40 **Coffee break**

11:40 – 13:20 **Session: Perspectives with uranium beams**

11:40 **Production yields of neutron-rich heavy nuclei in the  $^{238}\text{U}+^{124}\text{Sn}$  multinucleon transfer reaction** 20'

Speaker: L. Corradi

12:00 **Synthesis of heavy and superheavy neutron-rich nuclei in multinucleon transfer reactions at grazing angle using Uranium beams** 20'

Speaker: B. Sulignano (via zoom)

12:20 **Pushing the limits of  $\gamma$ -ray spectroscopy of neutron rich fission fragments with AGATA+PRISMA coupling** 20'

Speaker: J. Dudouet (via zoom)

12:40 **Lifetimes of excited states along and around the  $N=50$  shell closure** 20'

Speaker: A. Gottardo

13:00 **Conclusions and general discussion** 20'

13:20 - 14:30 **Lunch**

After 14:30 – possible visit of experimental hall (if there are people interested)