Day 1 – Monday 30/05/2022

10:00-11:30 – *Presentation of participants, scope of the RRTF, discussion of the program*

11:30-13:30 **Lunch**

13:45-16:00 – *Symposium open to public*

· Introduction (Giuliano Giacalone)

· talk 1: Connection between nuclear structure and heavy-ion collisions (50+10, Giuliano Giacalone)

· talk 2: Isobar collisions at RHIC: A tool for precision studies in nuclear physics (50+10, Jiangyong Jia)

16:00-19:00 – **Welcome reception**

Day 2 – Tuesday 31/05/2022

09:00-12:00 – **Discussion:** Modeling nuclei across energy scales

(1/2): Energy density functional approach in nuclear structure

(2/2): Glauber Monte Carlo approach in heavy-ion collisions

⟶ initiated by: Luis Robledo (1/2), Matthew Luzum (2/2)

12:00-13:30 – **Lunch**

Presentation of nuclear theory frameworks:

13:30-14:15 – Tomás Rodríguez

Gogny energy density functional

14:15-15:00 – Wouter Ryssens

Skyrme energy density functional

15:00-15:45 – Tamara Nikšić (virtual)

Relativistic energy density functional

16:15-17:30 – **Talk+Discussion:** Nucleon clustering in light nuclei

⟶ speaker (virtual): Jean-Paul Ebran

17:30 – **End**

Day 3 – Wednesday 01/06/2022

09:00-12:00 – **Discussion:** Signatures of nuclear shapes and radial profiles in the collective flow of
high-energy nuclear collisions: detailed analysis, current understanding, future prospects
⟶ initiated by: Jiangyong Jia

12:00-13:30 – **Lunch**

13:30-14:45 – **Talk+Discussion:** Experimental status of nuclear shapes and shape coexistence
for zirconium and ruthenium isotopes around $A = 96$
⟶ invited speaker: Kathrin Wimmer (GSI)

14:50-16:05 – **Talk+Discussion:** Nuclear deformation across the Segrè chart
⟶ speaker (virtual): Anatoli Afanasjev

16:15-17:30 – **Talk+Discussion:** Determination of the neutron skin of atomic nuclei
⟶ invited speaker (virtual): Xavier Roca-Maza (Uni. Milano)

17:30 – **End**

Day 4 – Thursday 02/06/2022

09:00-12:00 – **Discussion:** towards a consistent description across scales
(1/2): ab-initio approaches in nuclear structure
(2/2): ab-initio approaches in heavy-ion collisions
⟶ initiated by: Vittorio Somà (1/2), Bjoern Schenke (2/2)

12:00-13:30 – **Lunch**

Presentation of nuclear theory frameworks:
13:30-14:30 – Benjamin Bally
Ab initio projected generator coordinate method
14:30-15:30 – Dean Lee
Nuclear lattice effective field theory

16:00-17:30 – **Discussion on optimal species for collider runs to test ab-initio input**

17:30 – **End**

Day 5 – Friday 03/06/2022

09:00-10:30 – **Time for extra discussions over selected topics.**

10:30-12:00 – Nuclear deformations of $A = 96$ isobars in the nuclear shell model.

           · Emergent physics in the nuclear shell model

           · State-of-the-art results for zirconium and ruthenium isotopes

⟶ speakers: Takaharu Otsuka, Yusuke Tsunoda

12:15-13:30 – **Lunch**

13:30-15:00 – *Heavy-ion collisions at lower collision energies, hybrid simulation frameworks,*

           nuclear structure input

 ⟶ speaker: Hannah Elfner

15:00-16:00 – **Summary of first meeting. Steps towards the second meeting.**

16:00 – **End**