



## SCIENTIFIC PROGRAMME

### NUCLEAR PHYSICS MID-TERM PLAN 4th-5th APRIL 2022

#### Monday, 4 April 2022

09:00	<b>Welcome Address</b>	20'
	Speakers: S. Gammino (Director of INFN-LNS), D. Bettoni (Vicepresident of INFN GE), M. G. Grimaldi (Director of UniCT-DFA), A. Tricomi (Director of INFN-CT, CSFNSM), E. Nappi (Coordinator of INFN-E), G. Cuttone (President of INFN4LS, INFN-TICC), Y. Blumenfeld (President of PAC-LNS)	
09:20	<b>Workshop Presentation</b>	10'
	Speaker: R. Nania (President of CSN3-INFN)	
09:30	<b>Future beams at LNS</b>	30'+10'
	Speakers: L. Celona, P. Russotto	
10:10	<b>Forthcoming facilities at LNS</b>	30'+10'
	Speaker: A. Tumino	
10:50 - 11:10	<b>Coffee break</b>	20'
<b>WG1 - Nuclear dynamics (Chair: S. Pirrone)</b>		
11:10	<b>Heavy Ion Collisions – EOS</b>	30'+10'
	Speaker: E. De Filippo	
11:50	<b>Clustering</b>	30'+10'
	Speaker: A. Di Pietro	
12:40 – 14:00	<b>Lunch</b>	1h 20'
14:00	<b>Fission dynamics</b>	30'+10'
	Speaker: E. Vardaci	
14:40	Summary and discussion	10'+20'
<b>WG2 - Nuclear structure (Chair: C. Agodi)</b>		
15:10	<b>Nuclear Matrix Elements towards <math>0\nu\beta\beta</math>: Theoretical model developments</b>	30'+10'
	Speaker: A. Gargano	

15:50	<b>Selective study of nuclear structure response with high intensity beams and advanced spectrometry</b> Speaker: F. Cappuzzello	30'+10'
16:30 – 16:50	<b>Coffee break</b>	20'
16:50	<b>Collective modes in nuclei with stable and unstable beams</b> Speaker: G. Cardella	30'+10'
17:30	Summary and discussion	10'+20'
18:00 – 18:45	<b>Guided tour of the LNS visitor center</b>	45'
20:30	<b>Dinner</b>	

## Tuesday, 5 April 2022

### WG3 - Nuclear astrophysics (Chair: R. Pizzone)

09:00	<b>Nuclear and atomic input for the quiescent stellar evolution</b> Speaker: A. Piatella	30'+10'
09:40	<b>The «explosive» universe: BBN and explosive nucleosynthesis</b> Speaker: G.G. Rapisarda	30'+10'
10:20 - 10:50	<b>Coffee break</b>	30'
10:50	<b>s and r process</b> Speaker: M. L. Sergi	30'+10'
11:30	Summary and discussion	10'+20'

### WG4 – Applications (Chair: S. Tudisco)

12:00	<b>Medical applications</b> Speaker: G. Petringa	30'+10'
12:40	<b>Laser driven applications</b> Speaker: G.A.P. Cirrone and G. Milluzzo	30'+10'
13:30 – 15:00	<b>Lunch</b>	1h 30'
15:00	<b>Plasma traps applications</b> Speaker: D. Mascali	30'+10'
15:40	Summary and discussion	10'+20'
16:10	<b>Concluding remarks</b>	20'
16:30	<b>Departure</b>	