



SCIENTIFIC PROGRAMME

NUCLEAR PHYSICS MID TERM PLAN IN ITALY – LNL SESSION 11-12 APRIL 2022

Monday, 11 April 2022

09:00	Welcome Address Speakers: F. Gramegna (INFN LNL Director), A. Zoccoli (President INFN), P. Campana (GE INFN), D. Bettoni (GE INFN), R. Carlin (Director INFN-PD), G. Peruzzi (DFA, UniPD), A. Bracco (President of SIF), S. Leoni (President PAC LNL)	20'
09:20	Workshop Presentation Speaker: R. Nania (President CSN3-INFN)	10'
09:30	SPES and stable beams at LNL Speakers: D. Rifuggiato/E. Fagotti	30'+10'
10:10	Present and future experimental setups at LNL Speaker: E. Fioretto	30'+10'
10:50 – 11:10	Coffee break Nuclear Astrophysics (Chair: R. Depalo)	
11:10	Nuclear astrophysics theory Speaker: S. Cristallo	30'+10'
11:50	Nucleosynthesis up to the iron peak Speaker: A. Caciolli	30'+10'
12:30	Nucleosynthesis of trans-iron elements Speaker: T. Kurtukian Nieto	30'+10'
13:10	Summary (convener 1) and discussion	10'+20'
13:40 – 14:50	Lunch	

Applications (Chair: G. Pupillo)

14:50	Nuclear cross sections measurements and modelling for direct radionuclide production and neutron beam lines at SPES Speaker: L. Mou	30'+10'
15:30	ISOL and laser applications at the SPES facility Speaker: M. Ballan	30'+10'
16:10	Development, characterization and modifications of materials for applied nuclear physics Speaker: M. Campostrini	30'+10'
16:50	Summary (convener 1) and discussion	10'+20'
17:20 – 17:40	Coffee break	
17:40 – 19:00	Visit to LNL/SPES	
20:30	Dinner	

Tuesday, 12 April 2022

Nuclear Structure (Chair: D. Mengoni)

09:00	Light to medium-mass exotic nuclei Speaker: S. Bottoni	30'+10'
09:40	N~Z nuclei and isospin symmetry Speaker: M. Lenzi	30'+10'
10:20	Shell evolution Speaker: A. Gottardo	30'+10'
11:00 – 11:20	Coffee break	
11:20	Deformation and collective states Speaker: F.C. Crespi	30'+10'
12:00	Summary (convener 1) and discussion	10'+20'
	Nuclear Reactions and Dynamics (Chair: T. Marchi)	
12:30	Physics overview: alpha clustering, dynamics and structure, thermodynamics, equation of state, collective motions Speaker: D. Dell'Aquila	30'+10'
13:10	M/T: Fusion-evaporation and Pre-equilibrium emission Speaker: M. Mazurek	30'+10'
13:50 – 15:00	Lunch	

15:00	M/T: Transfer, Particle Spectroscopy Speaker: L. Gasques	30'+10'
15:40	M/T: fission and sub-barrier fusion Speaker: M. Caamaño	30'+10'
16:20	Summary (convener 1) and discussion	10'+20'
16:50 – 17:20	Concluding remarks	