

## APPENDIX C: Experiments approved and carried out at LNL in 2020

### a) Approved experiments at the Tandem-ALPI-PIAVE in 2020.

n.	Acronym	Title	Spokesperson	Institution	Accelerator	Scientific group
PAC04	84Selfetimes	Study of intruder states towards $^{78}\text{Ni}$ with lifetimes measurements following $^{82}\text{Se}(d,p)^{83}\text{Se}$	Andrea Gottardo David Verney	INFN – LNL IJCLab Orsay	TANDEM + ALPI	III
PAC07	BetaDelayedP	Searching for a narrow near-threshold resonance in $^{11}\text{B}$ with gamma-particle coincidences	S. Ziliani	University of Milano	Tandem-XTU	III
PAC11	COEXZR	Coexisting Shapes and Precision Tests of Monte-Carlo Shell-Model Calculations in $^{96}\text{Zr}$	Daniel Doherty Naomi Marchini Magda Zielinska	University of Surrey INFN – Firenze CEA - Saclay	Tandem-XTU	III
PAC 13	FAST-EM	Fast emission in O-induced reactions	M. Cicerchia	University of Padova INFN - LNL	TANDEM + ALPI	III
PAC 22	N13TEST	Development of a $^{13}\text{N}$ Radioactive Ion Beam for the Investigation of the Reaction $^{13}\text{N}(p,g)^{14}\text{O}$ at Astrophysical Energies	Sergey Artemov Rachim Yarmukhamedov Rosario G. Pizzone Marco Mazzocco	INPAS Uzbekistan, Tashkent INFN – LNS University of Padova	Tandem + XTU	III
PAC 24	Ni58Ni60	Does fusion hindrance depend on nucleon transfer Q-value?	Suzana Szilner Alberto M. Stefanini	Ruder Boskovic Institute Zagreb INFN-LNL	Tandem-XTU	III
PAC 26	PRISMA-MCP	In-beam test of the PRISMA entrance detector	Rosanna Depalo	University of Padova	Tandem-XTU	III
PAC 33	TestERSi	Low-energy heavy-ion fusion: test of coincidences between evaporation residues and charged particles	Giovanna Montagnoli Marcel Heine	University of Padova IPHC Strasbourg	Tandem-XTU	III

### b) Approved experiments carried out at the AN2000 accelerator in 2020

Acronym	Title	Spokesperson	Institution	Scientific group
ALCHIMIA	Analysis of Light and CHarge Induced by Micro Ion beAms	Re Alessandro	University of Torino and INFN Torino	V
ASIDI	Advances in Single Ion Deterministic Irradiation	Rigato Valentino	INFN-LNL	V
ANT	Advanced Nuclear Targets	Campostrini Matteo	INFN-LNL	V
DiaFab	Diamond microfabrication with ion beam lithography	Picollo Federico	University of Torino and INFN section of Torino	V

<b>FUSIONI</b>	Functionalization of superconducting materials by means of proton and light-ION Irradiations	Daniele Torsello	Univ. TO and INFN TO	V
<b>TITANIA</b>	Tailoring The local conductivity of TiO2 by Ion beam irradiation	Valentina Bonino	Univ. TO and INFN TO	V
<b>HCCC</b>	Halo Collimation through Channeling in Crystals HCCC	De Salvador Davide	Univ. PD and INFN LNL	V
<b>PD-BBN</b>	Study of the $2H(p,g)3He$ reaction at the AN2000 down to BBN energies	Caciolli Antonio	Univ. PD and INFN PD	III
<b>MEDEA</b>	Sources and dynamics of the MEDiterranean Aerosol in two distinct locations of southern Europe	Tositti Laura	Univ. BO	
<b>PID-CC3M</b>	Programma INFN Docenti	Gozzelino Andrea	INFN LNL	CC3M
<b>TNSS</b>	Synthesis and characterization of thin films for applications in radiation detection and beam channelling	Maggioni Gianluigi	Univ. PD and INFN PD	V
<b>ARCHIMEDE</b>	ARCHitects of Materials and Enhanced Devices	Rigato Valentino	INFN LNL	V
<b>SPES-DIAG</b>	Diagnostics of SPES beams	Mastinu Pierfrancesco	INFN LNL	
<b>HEAT</b>	Hydrogen desorption from carbon targets	Depalo Rosanna	INFN PD	V
<b>DES</b>	Deposition of Element on Substrate	Calvo Daniela	INFN sez. TO	III

**c) Approved experiments carried out at the CN accelerator in 2020**

<b>Acronym</b>	<b>Title</b>	<b>Spokesperson</b>	<b>Institution</b>	<b>Scientific group</b>
<b>E-PLATE</b>	Electrostatic Powder plating for Accelerator Targets	Cisternino Sara	INFN-LNL	V
<b>BELINA</b>	measurement of Maxwell-Boltzmann neutron spectra at $kT=30$ keV	Mastinu Pierfrancesco	INFN-LNL	III
<b>PID-CC3M</b>	Programma INFN Docenti	Rigato Valentino	INFN LNL	CC3M
<b>HCCC</b>	Halo Collimation through Channeling in Crystals HCCC	De Salvador Davide	Univ. PD and INFN LNL	V
<b>ANT</b>	Advanced Nuclear Targets	Campostrini Matteo	INFN-LNL	V
<b>ARCHIMEDE</b>	ARCHitects of Materials and Enhanced Devices	Rigato Valentino	INFN LNL	V
<b>MICRODOS</b>	Microdosimetry of therapeutic proton beams	Bianchi Anna	Belgian Nuclear Research Centre SCK CEN	V
<b>ENTER_BNCT_LNL</b>	Establishing New Technologies for BNCT @CNAO	Fagotti Enrico	INFN LNL	V

<b>CIMICE</b>	Compact and Innovative Microdosimeter for the Clinical Environment	Selva Anna	INFN LNL	V
<b>MITRA_LNL</b>	Microdosimetria e struttura di TRAccia	Conte Valeria	INFN LNL	V
<b>PULSE</b>	Pulsed Beam at CN	Mastinu Pierfrancesco	INFN LNL	III
<b>Didactics</b>	Didactics Univ. Padova	Gottardo Andrea	Univ. PD	-
<b>SPES-DIAG</b>	SPES Diagnostics setup test	Mastinu Pierfrancesco	INFN-LNL	III