

FRIDAY, OCTOBER 7

08:30 - 09:30 | REGISTRATION ◀

▶ OPENING CEREMONY

09:30 ▶ Introduction/Welcome addresses

▶ Session 1 | Chair: Michael KOKKORIS

- 09:50 ▶ **Agatino MUSUMARRA**, University of Catania/INFN, Italy
Ion traps for nuclear decay studies: a design for a handheld Electron Beam Ion Trap (EBIT)
- 10:20 ▶ **Cristian MASSIMI**, University of Bologna/INFN, Italy
Nuclear astrophysics at n_TOF: focus on neutron sources in stars

10:50 - 11:30 | COFFEE BREAK ◀

▶ Session 2 | Chair: Anastasios LAGOYANNIS

- 11:30 ▶ **Michael KOKKORIS**, National Technical University of Athens
Measurement and theoretical investigation of differential cross sections of elastically backscattered protons from natO in the energy range E=4-6 MeV
- 11:45 ▶ **Georgios GKATIS**, CEA - National Technical University of Athens
Cross section measurements of neutron elastic scattering on ⁵⁴Fe
- 12:00 ▶ **Nikolas PATRONIS**, University of Ioannina
Nuclear astrophysics at NEAR/n_TOF: Feasibility study of MACS measurements
- 12:15 ▶ **Sotiris CHASAPOGLOU**, National Technical University of Athens
Cross section measurements of (n,x) reactions in the energy range between 16.4 and 18.9 MeV using highly enriched Ge isotopes
- 12:30 ▶ **Veatriki MICHALOPOULOU**, CERN/National Technical University of Athens
Preliminary results of the cross section measurement of the ²³⁵U(n,f) reaction relative to the ¹⁰B(n,a) reaction at the CERN n_TOF facility
- 12:45 ▶ **Maria PEOVITI**, University of Ioannina
First results from the ⁶³Cu(a,g) reaction study for nuclear astrophysics purposes
- 13:00 ▶ **Thanos STAMATOPOULOS**, Los Alamos National Laboratory, USA
Preparation for the indirect measurement of ⁸⁸Zr(n,γ) at DICER at LANSCE

13:15 - 14:30 | SYMPOSIUM PHOTO - LUNCH BREAK ◀

▶ Session 3 | Chair: Roza VLASTOU

- 14:30 ▶ **Anastasios LAGOYANNIS**, NCSR "Demokritos"
Recent upgrades at the Tandem Laboratory of NCSR Demokritos
- 14:45 ▶ **Magda SATRAZANI**, University of Liverpool, UK
Shape studies in neutron-rich Ce isotopes
- 15:00 ▶ **Olga FASOULA**, National and Kapodistrian University of Athens
Momentum distribution studies of projectile fragments from peripheral collisions below the Fermi energy: Investigating a pathway to the nuclear chart limits
- 15:15 ▶ **Stergios KOULOURIS**, National and Kapodistrian University of Athens
Towards the identification of neutron-rich nuclei: recent progress in the study of the reaction ⁷⁰Zn (15 MeV/nucleon)+⁶⁴Ni with the MAGNEX Spectrometer
- 15:30 ▶ **Konstantina PALLI**, University of Ioannina/National and Kapodistrian University of Athens
Elastic scattering measurements of ⁷Be+⁹⁰Zr at sub- and near-barrier energies
- 15:45 ▶ **Kalliopi KAPERONI**, National Technical University of Athens
Semiconductor detector study for detecting fusion neutrons with Geant4 simulations

16:00 - 16:30 | COFFEE BREAK ◀

▶ Session 4 | Chair: Theo MERTZIMEKIS

- 16:30 ▶ **Antigoni KALAMARA**, NCSR "Demokritos"
FRINGE Project Overview
- 16:45 ▶ **Vasileios CHATZIKOS**, NCSR "Demokritos"/University of Ioannina
Positron annihilation investigation of defects in neutron irradiated tungsten materials
- 17:00 ▶ **Anastasia MILIONI**, National Technical University of Athens/NCSR Demokritos
True coincidence effect studies in HPGe detectors
- 17:15 ▶ **Ilias SAVVIDIS**, Aristotle University of Thessaloniki
Development of a spherical proportional counter as antineutrino detector for nuclear reactor monitoring
- 17:30 ▶ **Emmanouil BENIS**, University of Ioannina
The APAPES installation at the tandem accelerator laboratory of NCSR "Demokritos". Current status and future perspectives
- 17:45 ▶ **Stefanos NANOS**, University of Ioannina
Single electron capture in fast collisions of He-like ions with gas targets

18:00 | HNPS GENERAL ASSEMBLY ◀

21:00 | DINNER ◀

SATURDAY, OCTOBER 8

▶ Session 5 | Chair: Nikolaos NICOLIS

- 09:00 ▶ **Theodoros GAITANOS**, Aristotle University of Thessaloniki
Baryons and antibaryons in compressed nuclear matter
- 09:15 ▶ **Charalampos MOUSTAKIDIS**, Aristotle University of Thessaloniki
Investigating the possible existence of hyper-heavy nuclei in a neutron-star environment
- 09:30 ▶ **Alkiviadis KANAKIS-PEGIOS**, Aristotle University of Thessaloniki
The role of temperature on the tidal deformability of an inspiraling binary neutron star system
- 09:45 ▶ **Pavlos LASKOS-PATKOS**, Aristotle University of Thessaloniki
Universal relations and finite temperature neutron stars
- 10:00 ▶ **Dimitrios PAPOULIAS**, National and Kapodistrian University of Athens
The neutrino floor: a data-driven analysis
- 10:15 ▶ **Stylianos NIKAS**, University of Jyväskylä, FINLAND
Nuclear isomers in the r-process nucleosynthesis
- 10:30 ▶ **Theodora PAPAVALSILEIOU**, University of Western Macedonia
Radiation emission and absorption by astrophysical jets from XRBs
- 10:45 ▶ **Vaia PRASSA**, University of Thessaly
Microscopic analysis of octupole shape phase transitions and critical points in neutron rich actinides within the density functional framework

11:00 - 11:30 | COFFEE BREAK ◀

11:30 - 12:30 | POSTER SESSION ◀

▶ Session 6 | Chair: Alexandra IOANNIDOU

- 12:30 ▶ **Ion STAMATELATOS**, NCSR "Demokritos"
Clean and abundant energy for the Mankind: The way of fusion
- 12:45 ▶ **Theodora VASILOPOULOU**, NCSR "Demokritos"
NCSR contribution to the realization of fusion energy
- 13:00 ▶ **Nick PETROPOULOS**, National Technical University of Athens
Nuclear power as part of the Greek energy mix: Far better to be cost effectively proactive than unconditionally inactive
- 13:15 ▶ **John KALEF-EZRA**, University of Ioannina
Chernobyl and Fukushima nuclear accidents: Similarities and differences
- 13:30 ▶ **Georgios SILTZOVALIS**, National and Kapodistrian University of Athens
Characterization of a novel CdZnTe spectrometer for measuring radioactivity in the marine environment
- 13:45 ▶ **Christos TSABARIS**, Hellenic Centre for Marine Research
Surveillance of the seashore using the KATERINA II geo-referenced detection system
- 14:00 ▶ **Filothei PAPPAS**, Hellenic Centre for Marine Research
Radioactivity measurements at eastern Lesvos, Greece
- 14:15 ▶ **Georgios ELEFThERIOU**, Hellenic Centre for Marine Research
Assessment of marine radiological impact after an hypothetical nuclear accident in Eastern Mediterranean Sea

14:15 | CLOSURE OF THE SYMPOSIUM ◀

POSTER SESSION

11:30-12:30 | Saturday, October 8

- PP1 **Anastasia ZIAGKOVA**, National Technical University of Athens
Study of the cross section biasing technique using the GEANT4 toolkit for the determination of parasitic neutrons at N.C.S.R "Demokritos"
- PP2 **Stavros PATAS**, National Technical University of Athens
Activation cross section measurement of the (n,2n) reaction on ²⁰³Tl at 16.4 MeV, 18.9 MeV and theoretical calculations via the EMPIRE code
- PP3 **Vasiliki ANAGNOSTOPOULOU**, NCSR Demokritos/National Technical University of Athens
Characterization of Compton suppression system performance using VERDI multi-foil detectors
- PP4 **Sotirios Alexandros KOPANOS**, National Technical University of Athens
MCNP simulations for the n_TOF NEAR station
- PP5 **Christoforos FRANTZIS**, National Technical University of Athens
Neutron flux determination for NEAR station at the CERN n_TOF facility using the SAND II unfolding code
- PP6 **Styliani GOULA**, University of Ioannina
The new annular double-sided silicon detector dedicated to light particles' discrimination at n_TOF/CERN
- PP7 **Dimitrios PAPANIKOLAOU**, University of Ioannina
Study of HPGe detector shielding for use in inelastic neutron scattering experiments at the n_TOF/CERN facility
- PP8 **Eleni MITSIS**, NCSR Demokritos
Resistivity recovery of Fe after high dose proton irradiation
- PP9 **Konstantinos KOUTSOMITIS**, National and Kapodistrian University of Athens
Using SRIM to evaluate athermal recombination corrected displacement damage (ARC-dpa)
- PP10 **Margarita EFSTATHIOU**, National and Kapodistrian University of Athens
Gamma spectroscopy of even-even Ytterbium isotopes
- PP11 **Athanassios CHATZIKOTELIS**, University of Ioannina
Development of a simple algorithm for pre-fragment formation in proton-nucleus spallation reactions
- PP12 **Georgios TSITSIS**, University of Ioannina
A study of the reaction ⁵⁵Mn(p,4n)⁵²Fe: excitation function and medical applications
- PP13 **Georgia ZAFIRI**, University of Ioannina
A study of proton-induced reactions on natural Silicon targets
- PP14 **Michael VIKIARIS**, Aristotle University of Thessaloniki
The effects of Dark Matter upon neutron stars' properties
- PP15 **Polychronis KOLIOGIANNIS**, Aristotle University of Thessaloniki
Probing the nuclear equation of state from the existence of a ~2.6 M_⊙ neutron star: The GW190814 Puzzle
- PP16 **Nikolaos KYRITSIS**, National Technical University of Athens
Theoretical study of the ¹³C + d system, in the framework of the R-Matrix model
- PP17 **Pantelis TAIGANIDIS**, Aristotle University of Thessaloniki
Dosimetric characterization by thermoluminescence of dental zirconia based materials
- PP18 **Eleni NTALLA**, NCSR Demokritos
In situ method development for the oil based mud (OBM) radiological characterization originating from oil Industry by using a LaBr₃(Ce) scintillator
- PP19 **Nick PETROPOULOS**, National Technical University of Athens
Measuring radon concentrations in air using radon adsorption materials or air grab sampling at the progeny non-secular equilibrium time frame
- PP20 **Filothei PAPPAS**, Hellenic Centre for Marine Research
NORM measurements at Kalloni and Gera Gulfs, Lesvos Island, Greece
- PP21 **Chrysoula BETSOU**, Aristotle University of Thessaloniki
Radionuclides concentrations in moss bags close to a coal fired power plant in Northern Greece
- PP22 **Eleftheria IOANNIDOU**, Aristotle University of Thessaloniki
Air pollution in Helsinki using Lead-210 as a tracer



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