

**21ST ANNUAL SYMPOSIUM OF THE HELLENIC NUCLEAR PHYSICS SOCIETY**  
 May 25-26, 2012, NCSR "Demokritos", Athens, Greece  
 - Scientific Programme -

**FRIDAY 25/5/2012**

<b>TIME</b>			
08:30-09:00	<b>REGISTRATION</b>		
09:00-09:10	Welcome addresses		
<b>TIME</b>	<b>Speaker</b>	<b>Affiliation</b>	<b>Title</b>
<b>SESSION 1</b> Chair: G. Lalazissis <i>Dept. of Physics, AUTH</i>			
09:10-09:30	<b>E. Kossionides</b>	<i>Tandem Lab, INPP, NCSR "Demokritos"</i>	<b>40 years of "beam on target" at the Tandem accelerator (invited talk)</b>
09:30-09:50	R. Vlastou	<i>Dept. of Physics, NTUA</i>	New measurements of the $^{241}\text{Am}(n,2n)^{240}\text{Am}$ cross section
09:50-10:10	M. Zamani	<i>Dept. of Physics, AUTH</i>	Fission induced by light particles at intermediate energies
10:10-10:30	T. Alexopoulos	<i>Dept. of Physics, NTUA</i>	ATLAS New Small Wheel Upgrade: Micromegas
10:30-10:50	G. Souliotis	<i>Dept. of Chemistry, NKUA</i>	Studies of the process of N/Z equilibration in peripheral and semiperipheral heavy-ion collisions at 15 MeV/nucleon
10:50-11:10	T. Konstantinopoulos	<i>Tandem Lab, NCSR "Demokritos"</i>	In search of nuclei exhibiting E(5) critical-point symmetry features
11:10-11:30	<b>COFFEE BREAK</b>		
<b>SESSION 2</b> Chair: H. Florou <i>INRaSTES, NCSR "Demokritos"</i>			
11:30-12:00	<b>P. Kritidis</b>	<i>INRaSTES, NCSR "Demokritos"</i>	<b>Radioactivity measurements one year after the nuclear accident in Fukushima, Japan (invited talk)</b>
12:00-12:20	E. Vagena	<i>Dept. of Physics, AUTH</i>	Radionuclides from the Fukushima accident in Thessaloniki, Greece and Milano, Italy - measurements and modelling approaches
12:20-12:40	M. Sotiropoulou	<i>INRaSTES, NCSR "Demokritos"</i>	The Application of the ERICA Tool to Radioactivity Measurements for Environmental Impact Assessment: The Case Study of Fukushima ...
12:40-13:00	A. Clouvas	<i>Dept. of Electrical Engineering, AUTH</i>	Radon in Soil : Experimental measurements and Theoretical calculations
13:00-13:20	C. Tsabaris	<i>Inst. of Oceanography, HCMR</i>	Experimental Set Up for the Determination of Natural Radionuclides in Formation Waters Produced in Oil and Gas Exploration Fields
13:20-13:40	G. Eleftheriou	<i>Inst. of Oceanography, HCMR</i>	Radiological Modelling at Thermaikos Gulf
13:40-15:00	<b>LUNCH</b>		
<b>SESSION 3</b> Convener: S. Harissopulos <i>Tandem Lab, INPP, NCSR "Demokritos"</i>			
15:00-15:30	<b>POSTER SESSION</b>		
<b>SESSION 4</b> Chair: R. Vlastou <i>Dept. of Physics, NTUA</i>			
15:30-15:50	E. Mavrommatis	<i>Physics Department, NKUA</i>	$\beta$ -Decay Half-Lives of Nuclei in the Crust of Neutron Stars: The ANN Model
15:50-16:10	Ch. C. Moustakidis	<i>Dept. of Physics, AUTH</i>	Nuclear Equation of State Effects on the r-mode Instability of Neutron Stars
16:10-16:30	D. Petrellis	<i>INPP, NCSR "Demokritos"</i>	Nuclear physics aspects of the p-process
16:30-17:00	<b>COFFEE BREAK</b>		
<b>SESSION 5</b> Chair: M. Zamani <i>Dept. of Physics, AUTH</i>			
17:00-17:20	I. Savvidis	<i>Dept. of Physics, AUTH</i>	Neutron Detection via $^{14}\text{N}(n,p)^{14}\text{C}$ reaction Using the Spherical Proportional Counter
17:20-17:40	M. Kokkoris	<i>Dept. of Physics, NTUA</i>	Experimental study and FLUKA simulations of a prototype micromegas chamber in a mixed neutron and photon radiation field ...
17:40-18:00	T. J. Mertzimekis	<i>Physics Department, NKUA</i>	The Application of the High-Velocity Transient Field for the $g(2_1^+)$ Measurement in the Neutron-rich $^{72}\text{Zn}$
18:00-18:20	N. Patronis	<i>Dept. of Physics, Univ. of Ioannina</i>	One neutron transfer reactions around $^{68}\text{Ni}$ : First results from the $^{66}\text{Ni}(d,p)^{67}\text{Ni}$ experiment
<b>18:30-19:30</b>	<b>HNPS General Assembly &amp; Elections</b>		

**SATURDAY 26/5/2012**

<b>TIME</b>	<b>Speaker</b>	<b>Affiliation</b>	<b>Title</b>
<b>SESSION 6</b> Chair: E. Stiliaris <i>Physics Department, NKUA</i>			
09:00-09:20	K. Mergia	<i>INRaSTES, NCSR "Demokritos"</i>	Research activities of NCSR "Demokritos" for the European Fusion Technology Program
09:20-09:40	Z. Kotsina	<i>INRaSTES, NCSR "Demokritos"</i>	Radiation damage studies of Fe-Cr alloys for Fusion applications using ion beams
09:40-10:00	A. Godelitsas	<i>Geology Dept., NKUA</i>	Activities of the University of Athens at SUL-X and FLUO beamlines of ANKA Synchrotron facility in Earth & Environmental Sciences
10:00-10:20	J. Kalef-Ezra	<i>Medical School, University of Ioannina</i>	Applications of a Novel Whole Body Counter in Radiation Protection and Human Body Composition Studies
10:20-10:40	A.-N. Rapsomanikis	<i>Physics Department, NKUA</i>	Phantom Experimentation on SPECT and Infrared Tomography
10:40-11:00	M. Zioga	<i>Physics Department, NKUA</i>	Image Reconstruction in the Positron Emission Tomography
11:00-11:30 <b>COFFEE BREAK</b>			
<b>SESSION 7</b> Chair: E. Mavrommatis <i>Physics Department, NKUA</i>			
11:30-11:50	N. G. Nicolis	<i>Dept. of Physics, Univ. of Ioannina</i>	Population of isomeric states in neutron-induced reactions on $^{197}\text{Au}$
11:50-12:10	M. Diakaki	<i>Dept. of Physics, NTUA</i>	Characterization of actinide targets for fission cross section measurements
12:10-12:30	V. Paneta	<i>Tandem Lab, INPP, NCSR "Demokritos"</i>	Differential cross-section measurements for the $^7\text{Li}(p,p_0)^7\text{Li}$ , $^7\text{Li}(p,\alpha_0)^4\text{He}$ , $^{19}\text{F}(p,p_0)^{19}\text{F}$ and $^{19}\text{F}(p,\alpha_0)^{16}\text{O}$ reactions
12:30-12:50	T.S. Kosmas	<i>Dept. of Physics, Univ. of Ioannina</i>	Astrophysical neutrino signals and the role of nuclear structure
12:50-13:10	V. Tsakstara	<i>Dept. of Physics, Univ. of Ioannina</i>	Studying nuclear responses to Supernova neutrinos
13:10-13:30	D.K. Papoulias	<i>Dept. of Physics, Univ. of Ioannina</i>	Lepton -flavor violating neutral-current exotic $\nu$ -nucleus processes
13:30-13:50	P.G. Giannaka	<i>Dept. of Physics, Univ. of Ioannina</i>	Realistic nuclear structure calculations for orbital e-capture by nuclei
13:50-15:30 <b>LUNCH</b>			
<b>SESSION 8</b> Chair: I. Stamatelatos <i>INRaSTES, NCSR "Demokritos"</i>			
15:30-15:50	E. Diapouli	<i>INRaSTES, NCSR "Demokritos"</i>	Radioactive tracers for long range transport of biomass burning aerosols
15:50-16:10	T. Vasilopoulou	<i>INRaSTES, NCSR "Demokritos"</i>	Large Sample Neutron Activation Analysis for Cultural Heritage Studies
16:10-16:30	A. Savidou	<i>INRaSTES, NCSR "Demokritos"</i>	Techniques Used for Clearance of Radioactive Waste
16:30-16:50	D. L. Patiris	<i>Inst. of Oceanography, HCMR</i>	Sediment measurement of samples from Tigris and Euphrates estuary by means of gamma-ray spectroscopy
<b>16:50 CLOSING OF THE SYMPOSIUM</b>			

**Posters to be displayed at the poster session**

<b>Poster No.</b>	<b>Ist author name</b>	<b>Affiliation</b>	<b>Poster title</b>
P1	A.Kalamara	<i>Dept. of Physics, NTUA</i>	Monte Carlo MCNP modeling of a HPGe detector and its efficiency for extended sample geometry
P2	E. Androulakaki	<i>Dept. of Physics, NTUA</i>	In situ Gamma-Ray Measurements of Marine Sediment using Monte Carlo Simulation
P3	A. Godelitsas	<i>Geology Dept., NKUA</i>	Heavy metals and radionuclides in the northern coastal zone of Ikaria island (Greece)
P4	I. Tzifas	<i>Geology Dept., NKUA</i>	High uranium concentrations in sedimentary rocks of Epirus (NW Greece)
P5	J. Kalef-Ezra	<i>Medical School, University of Ioannina</i>	Induced Radioactivity in Medical Accelerators
P6	E. Vagena	<i>Dept. of Physics, AUTH</i>	Measurements and Monte Carlo simulations of neutron production at a medical accelerator
P7	S. Valakis	<i>Medical School, University of Ioannina</i>	Effect of Radon Concentration in Air on the Quality of Radioactivity Measurements in the Human Body
P8	H. Florou	<i>INRaSTES, NCSR "Demokritos"</i>	Indicative Radiation Dose Rates in Selected Areas of Elevated Natural radioactivity in Greece
P9	F. Panagiotopoulos	<i>Physics Department, NKUA</i>	3D Modeling of the New Microbeam Setup at INP, NCSR "Demokritos"
P10	K. Stamou	<i>Physics Department, NKUA</i>	A Nuclear Electromagnetic Moments Database
P11	A. Kanellakopoulos	<i>Physics Department, NKUA</i>	Characterization of Nuclear Targets and Thin Films Using Ion-Beam Techniques
P12	N. Gazis	<i>Dept. of Physics, NTUA &amp; CERN</i>	Fabrication and validation of the prototype supporting system for the CLIC Two-Beam Modules
P13	F. Noli	<i>Dept. of Chemistry, AUTH</i>	N- and O-depth distribution by NRA for the investigation of the corrosion resistance of plasma nitrided and oxidized CoCrMo alloy
P14	V. Foteinou	<i>Tandem Lab, INPP, NCSR "Demokritos"</i>	Proton capture reactions for the p-process nucleosynthesis: the case of the Mo isotopes
P15	G. Provatas	<i>Tandem Lab, INPP, NCSR "Demokritos"</i>	Systematic measurements of (alpha,gamma) reaction cross sections for astrophysics applications