

# 16<sup>th</sup> Hellenic Symposium on Nuclear Physics Conference Program

**Friday, 26-May-2006**

08:30 – 09:00      **Registration**

09:00 – 09:30      **Welcome – Opening Remarks**

## **Session I**                      **Chair: S. Massen (Univ. of Thessaloniki)**

09:30 – 10:05	Papanicolas C.N. (UoA)	The Pion Cloud and the Shape of Hadrons
10:05 – 10:40	Kowalski S. (MIT)	Parity Violation in Electron Scattering Experiments
10:40 – 11:00	Tetradis N. (UoA)	The Quark-Meson Model and the Phase Diagram of QCD
11:00 – 11:15	Sparveris N.F. (UoA)	Determination of quadrupole strengths in the $\gamma^*N \rightarrow \Delta(1232)$ transition at the low momentum transfer region
11:15 – 11:30	Tsapalis A. (UoA)	Nucleon Electromagnetic Structure from Lattice QCD
11:30 – 11:50	<b>Coffee</b>	

## **Session II**                      **Chair: S. Harissopoulos (NCSR “Demokritos”)**

11:50 – 12:25	Vretenar D. (Zagreb)	Nuclear energy density functional constrained by low-energy QCD
12:25 – 12:45	Lalazissis G. (UoTh)	Isospin Dependence of Covariant Density Functionals
12:45 – 13:05	Anagnostatos G. (Demokritos)	Distribution of probability maxima of the antisymmetrized wave function for the nucleons of a shell and for all nucleons of a nucleus
13:05 – 13:20	Papaconstantinou P. (TU Darmstadt)	Description of Nuclear Collectivity Using Correlated Realistic Interactions
13:20 – 13:35	Papachristou P. (UoA)	Decay widths of Isoscalar Giant Monopole Resonances: Regular and Chaotic Dynamics
13:35 – 15:00	<b>Lunch &amp; Coffee</b>	
15:00 – 15:30	<b>Poster Session</b>	

**Session III****Chair: P. Assimakopoulos (Univ. of Ioannina)**

15:30 – 16:05	Tzanakos G. (UoA)	First Observation of Muon Neutrino Disappearance in the MINOS Experiment
16:05 – 16:25	Nicolis N. (UoI)	Sequential binary decay of light nuclear systems
16:25 – 16:45	Kokkoris M. (NTUA)	Differential Cross Section Measurements of the $^{12}\text{C}(\text{d},\text{p}_{1,2,3})^{13}\text{C}$ Reactions in the Energy Range $E_{\text{d, lab}} = 900\text{-}2000$ keV for Nuclear Reaction Analysis
16:45 – 17:00	Patronis N. (NTUA)	Study of the $^{191}\text{Ir}(\text{n},2\text{n})^{190}\text{Ir}$ reaction cross section
17:00 – 17:15	Galanopoulos S. (NTUA)	Statistical model calculations on natural Ge
17:15 – 17:30	Spyrou A. (Demokritos)	A high efficiency $\gamma$ ray detection system for capture reaction cross section measurements relevant to stellar nucleosynthesis
17:30 – 17:45	<b>Coffee</b>	
17:45 – 19:45	<b>General Assembly</b>	
21:15	<b>Banquet</b>	

## Saturday, 27-May-2006

### Session IV

Chair: G. Lalazisis (Univ. of Thessaloniki)

- 09:00 – 09:35 Bonatsos D. (Demokritos) Connecting the  $X(5)-\beta^2$ ,  $X(5)-\beta^4$ , and  $X(3)$  models to the shape/phase transition region of the Interacting Boson Model
- 09:35 – 09:55 Moustakidis Ch. (UoTh) Nuclear symmetry energy effects on neutron star properties
- 09:55 – 10:10 Fossion R. (INFN Padova) Nuclear phase transitions near the critical points: a study with Relativistic Mean-Field and Boson Coherent States
- 10:10 – 10:25 Mertzimekis Th. (MSU) Probing the  $T_z=-3/2$  nuclei via magnetic moment measurements
- 10:25 – 10:40 Lenis D. (Demokritos) Parameter-free solution of the Bohr Hamiltonian for actinides critical in the octupole mode
- 10:40 – 10:55 Petrellis D. (Demokritos)  $X(3)$ : an exactly separable  $\gamma$ -rigid version of the  $X(5)$  critical point symmetry
- 10:55 – 11:20 **Coffee**

### Session V

Chair: R. Vlastou (Nat. Tech. Univ. of Athens)

- 11:20 – 11:55 Zamani M. (UoTh) A Spallation Neutron Source based on Pb Target Surrounded by U Blanket
- 11:55 – 12:15 Karaiskos P. (UoA) Current trends in the endorsement and quality assurance of contemporary radiotherapy applications
- 12:15 – 12:30 Polychronopoulou A. (UoA) Position and Energy Resolution Study of a  $\gamma$ -Camera based on a Position Sensitive PMT
- 12:30 – 12:45 Patiris D. (UoI) TRIAC II: A Matlab code for counting and recognition of tracks' characteristics from images of SSNTDs
- 12:45 – 13:00 Serris M. (NTUA) Study of the (n,2n) reaction cross section on  $^{174}\text{Hf}$  isotope
- 13:00 – 13:15 Gaitanos Th. (Muenchen) Constraints on the nuclear Equation of State from finite nuclei, neutron stars and heavy ion collisions
- 13:15 – 13:30 Prassa V. (UoTh) Particle production in intermediate Heavy Ion Collisions
- 13:30 – 13:45 Costiris N. (UoA) Global model for  $\beta^-$  Decay Half-Lives using neural networks
- 13:45 – 15:00 **Lunch & Coffee**

**Session VI****Chair: C. Kalfas (NCSR "Demokritos")**

15:00 – 15:35	Antoniou N. (UoA)	Critical QCD phenomena in relativistic nuclear collisions
15:35 – 15:55	Aslanoglou X. (UoI)	CASTOR: Research for Strange Objects at the Experiment CMS at CERN
15:55 – 16:15	Maintas X. (UoA)	Bound state effects in transverse momentum parton distributions
16:15 – 16:30	Kapoyannis A. (UoA)	The critical endpoint of Bootstrap and Lattice QCD matter
16:30 – 16:45	Saridakis M. (UoA)	Evolution of Critical Correlations at the QCD Phase Transition
16:45 – 17:00	Chasioti V. (UoI)	Cross section calculations for neutrino-nucleus reactions in $^{40}\text{Ar}$ , $^{98}\text{Mo}$ nuclei
17:00 – 17:20	Kosmas Th. (UoI)	Detection rates of cold dark matter candidates by using deformed Hartree-Fock method
17:20 – 17:30	<b>Concluding Remarks - End of the Symposium</b>	