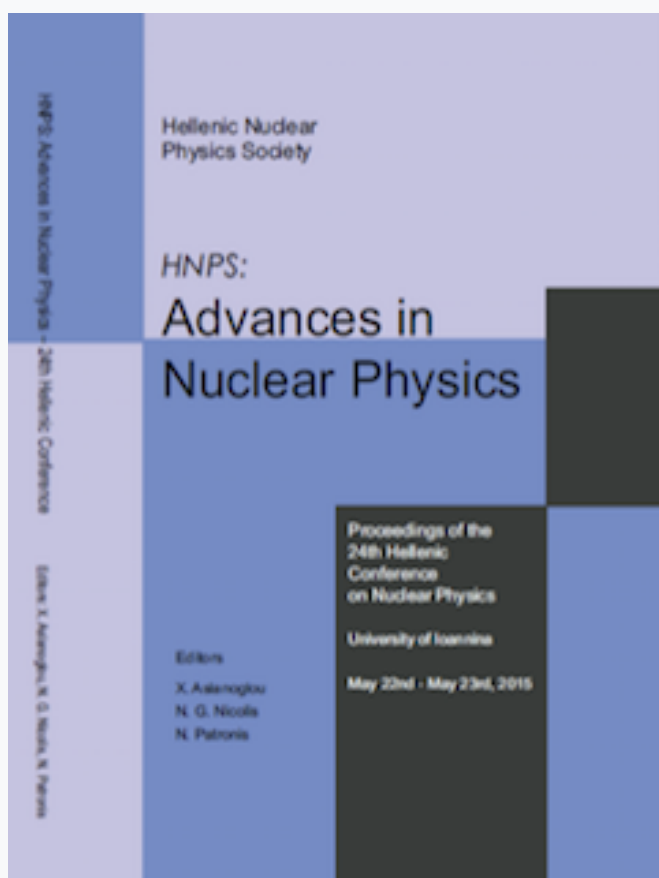


HNPS Advances in Nuclear Physics

Vol 23 (2015)

HNPS2015



Editorial Comments and Symposium Info

/ Editorial Team

To cite this article:

Editorial Team, /. (2019). Editorial Comments and Symposium Info. *HNPS Advances in Nuclear Physics*, 23. Retrieved from <https://eproceedings.epublishing.ekt.gr/index.php/hnps/article/view/1887>

24th Annual Symposium
HELLENIC NUCLEAR PHYSICS SOCIETY

HNPS 2015

22-23 May, 2015

Department of Physics
University of Ioannina

Nuclear Physics & Astrophysics
Nuclear Physics Applications
Nuclear Technology

“Karolos Papoulias” Conference Center

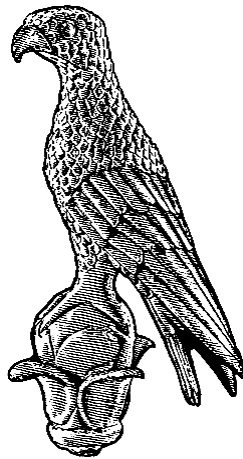
<http://hnps2015.physics.uoi.gr/>



Organizing Committee:

X. Aslanoglou
K. Ioannides
Th. Kosmas
N.G. Nicolis
N. Patronis

HNPS 2015 SPONSORS



University of Ioannina



24th SYMPOSIUM OF THE HELLENIC
NUCLEAR PHYSICS SOCIETY
Ioannina, 22-23 May 2015



From the editors:

The 24th Annual Symposium of the Hellenic Nuclear Physics Society was held at the University of Ioannina, from 22 to 23 May, 2015. It was hosted at the “karolos Papoulias” Conference Center and was organized by the Nuclear Physics Laboratory of the Physics Department of the University of Ioannina.

A wide area of topics were covered, which can be categorised in Nuclear Physics and Astrophysics, Nuclear Physics Applications, Environmental Physics, Nuclear Technology and Theoretical Nuclear Physics. The 118 registered participants had the opportunity to present their work, discuss their achievements and problems and develop new collaborations.

This volume contains the Proceedings of the conference, numbering full papers and abstracts for 32 oral presentations and 17 poster contributions presented at the conference.

Ioannina, May 2017

Xenofon Aslanoglou
Nicolaos Patronis
Nicolaos Nicolis

List of Participants

| A/A | Title | Family Name | First Name | Affiliation |
|------------|--------------|--------------------|-------------------|--------------------|
| 1 | Ms | Alexandropoulou | Stamatina | U of I |
| 2 | Mr | Anagnostopoulos | Fotios | U of I |
| 3 | Mr | Anastasiadis | Anastasios | U of I |
| 4 | Ms | Androulakaki | Frosso | NTUA |
| 5 | Mr | Androulakis | Ioannis | AUTH |
| 6 | Prof | Aslanoglou | Xenofon | U of I |
| 7 | Dr | Axiotis | Michail | NCSR"D" |
| 8 | Ms | Betsou | Chrysoula | U of I |
| 9 | Ms | Bezou | Paraskevi | U of I |
| 10 | Ms | Bligoura | Natalia | U of I |
| 11 | Mr | Chanlaridis | Savvas | AUTH |
| 12 | Prof. | Clouvas | Alexandros | AUTH |
| 13 | Dr | Dimitriou | Anastasios | U of C |
| 14 | Mr | Doukas | Spiros | U of I |
| 15 | Mr | Efremidis | Nikolaos | U of I |
| 16 | Ms | Eleme | Zinovia | U of I |
| 17 | Dr | Florou | Heleny(Eleni) | NCSR"D" |
| 18 | Dr | Foteinou | Varvara | NCSR"D" |
| 19 | Prof. | Gaitanos | Theodoros | AUTH |
| 20 | Ms | Galanakou | Panagiota | U of I |
| 21 | Ms | Georgali | Efstathia | U of I |
| 22 | Ms | Georgiadou | Anastasia | U of I |
| 23 | Ms | Georvasili | Stefania | U of I |
| 24 | Dr | Giannaka | Panagiota | U of I |
| 25 | Mr | Gianneios | Paris | U of I |
| 26 | Mr | Giannopoulos | Stathis | U of I |
| 27 | Mr | Girbas | Mike | U of I |
| 28 | Ms | Gkilo | Zoel | AUTH |
| 29 | Ms | Gkiouzel | Sevasti-Maria | U of I |
| 30 | Ms | Gogou | Eurosini | U of I |
| 31 | Mr | Grigoriadis | Anastasios | U of I |
| 32 | Ms | Grigoriadoy | Panagiota | U of I |
| 33 | Prof. | Ioannidis | Konstantinos | U of I |
| 34 | Prof. | Kafef-Ezra | John | U of I |
| 35 | Mr | Kalaitzis | Panagiotis | U of I |
| 36 | Ms | Kalamara | Antigoni | NTUA |
| 37 | Mr | Kanellakopoulos | Anastasios | U of A |
| 38 | Mr | Kantre | Karim-Alexandros | NTUA |
| 39 | Ms | Kanzizoglou | Symela | U of I |
| 40 | Dr | Käppeler | Franz | KIT |
| 41 | Ms | Karagkounh | Kwnstantina | U of I |
| 42 | Mr | Karailias | Alexis | U of A |
| 43 | Ms | Kardomateas | Kalliopi | U of I |
| 44 | Ms | Kastarou | Eleni | U of I |
| 45 | Ms | Katramada | Electra | U of I |
| 46 | Ms | Katsibra | Theodora | U of I |
| 47 | Mr | Kazantzidis | Lavrentios | U of I |
| 48 | Dr | Kokkoris | Michael | NTUA |
| 49 | Ms | Konstantinidou | Michaela | U of I |
| 50 | Ms | Konstantinou | Eleftheria | U of I |
| 51 | Mr | Koseoglou | Pavlos | IKP TU |
| 52 | Ms | Kosma | Thomai | U of I |
| 53 | Prof. | Kosmas | Theocharis | U of I |

| | | | | |
|-----|-------|-------------------|---------------------|---------|
| 54 | Ms | Koutsilianou | Vasiliki | U of A |
| 55 | Mr | kyriopoulos | Fotis | U of I |
| 56 | Ms | Lagaki | Varvara | U of A |
| 57 | Dr | Lagopati | Nefeli | U of I |
| 58 | Ms | Levidioti | Argyro | NTUA |
| 59 | Ms | Mahaira | Lito | U of I |
| 60 | Ms | Manoli | Paraskevi | U of I |
| 61 | Ms | Marangouli | Georgia | NTUA |
| 62 | Mr | Melios | Vasilios | U of I |
| 63 | Prof. | Mertzimekis | Theo J. | U of A |
| 64 | Ms | Michalopoulou | Veatriki | NTUA |
| 65 | Ms | Mitsi | Eleni | U of A |
| 66 | Dr | Moustakidis | Charalampos | AUTH |
| 67 | Mr | Nakis | Giorgos | U of I |
| 68 | Prof. | Nicolis | Nikolaos | U of I |
| 69 | Mr | Ntagiantas | Sevastianos | U of I |
| 70 | Ms | Ntinopoulou | Stamatia | U of I |
| 71 | Ms | Palaiologou | Athanasia | U of I |
| 72 | Mr | Panagiotoulas | Lazaros | U of I |
| 73 | Dr | Paneta | Valentina | NTUA |
| 74 | Dr | Papachristodoulou | Christina | U of I |
| 75 | Mr | Papoulias | Dimitrios K. | U of I |
| 76 | Ms | Pappa | Filothei | NTUA |
| 77 | Mr | Paspaliaris | Evangelos-Dimitrios | U of I |
| 78 | Mr | Passalidis | Stylianos | U of I |
| 79 | Dr | Patiris | Dionisis | HCMR |
| 80 | Prof. | Patronis | Nikolas | U of I |
| 81 | Mr | Pelessis | Constantinos | U of I |
| 82 | Mr | Perketes-Sigalas | Konstantinos | NTUA |
| 83 | Prof. | Petropoulos | Nick | NTUA |
| 84 | Dr | Prassa | Vaia | U of Z |
| 85 | Dr | Provas | Georgios | NCSR"D" |
| 86 | Mr | Psaltis | Thanassis | U of A |
| 87 | Mr | Sakkas | Alexandros | U of I |
| 88 | Dr | Sarlikiotis | Nikolaos | NCSR"D" |
| 89 | Ms | Savvidi | Kamila | U of I |
| 90 | Prof. | Savvidis | Ilias | AUTH |
| 91 | Mr | Savvidis | George | U of I |
| 92 | Mr | Sgouros | Onoufrios | U of I |
| 93 | Ms | Sinani | Alexandra | U of I, |
| 94 | Dr | Sinatkas | Ioannis | TEI "K" |
| 95 | Mr | Skouras | Marios | U of I |
| 96 | Mr | Soukeras | Vasileios | U of I |
| 97 | Dr | Stamatelatos | Ion | NCSR"D" |
| 98 | Dr | Stamoulis | Kostas | U of I |
| 99 | Mr | Stavropoulos | Georgios | U of I |
| 100 | Mr | Stavropoulos | Leonardos | U of A |
| 101 | Ms | Stefanidou | Xrysa | U of I |
| 102 | Prof. | Strologas | John | U of I |
| 103 | Mr | Symeonidis | Christos | U of I |
| 104 | Mr | Trachiotis | Panagiotis | U of I |
| 105 | Mr | Tringas | Georgios | U of I |
| 106 | Dr | Tsabaris | Christos | HCMR |
| 107 | Dr | Tsinganis | Andreas | NTUA |
| 108 | Dr | Tsodoulos | Ioannis | U of I |
| 109 | Mr | Tsologiannis | Antonis | U of I |

| | | | | |
|-----|-------|--------------|-------------------|--------|
| 110 | Mr | Venikoudis | Stavros | U of I |
| 111 | Prof. | Vlastou-Zani | Roza | NTUA |
| 112 | Ms | Vogiatzi | Stergiani-Marina | U of I |
| 113 | Mr | Vretinaris | Stamatis | AUTH |
| 114 | Ms | Xrysoxoou | Xristina-Stella | U of I |
| 115 | Ms | Zaverdenou | Mariana | U of I |
| 116 | Ms | Zelilidou | Styliani | U of I |
| 117 | Ms | Zervou | Aristea-Anastasia | U of I |
| 118 | Ms | Zyrioliou | Aikaterini | U of I |

24thAnnual Symposium of the Hellenic Nuclear Physics Society (HNPS 2015)

Friday 22.05.2015

08.30 – 09.00 Registration
09.00 - 09.15 Welcome Speeches

| TIME | SPEAKER | AFFILIATION | TITLE |
|---|-------------------|-------------|--|
| Session I – Chair: R. Vlastou | | | |
| 09.15 - 10.00 | F. Käppeler | KIT | Neutron capture data for unstable nuclei– Astrophysical quests and experimental challenges |
| 10.00 - 10.15 | M. Axiotis | NCSR | New Instruments for Nuclear Astrophysics and Applications |
| 10.15 - 10.30 | V. Foteinou | NCSR | Study of capture reactions in inverse kinematics relevant to nuclear astrophysics |
| 10.30 - 10.45 | A. Tsinganis | NTUA, CERN | The fission programme at the CERN n_TOF facility |
| 10.45 - 11.00 | A. Stamatopoulos | NTUA | The ²⁴⁰ Pu(n,f) Cross Section Measurement at CERN's n_TOF facility |
| 11.00 - 11.15 | Z. Eleme | UOI | Determination of the Neutron Beam Spatial Profile at n_TOF EAR-2 using the CR-39 Track Detectors |
| 11.15 - 11.45 | COFFEE BREAK | | |
| Session II – Chair: M. Kokkoris | | | |
| 11.45 - 12.00 | R. Vlastou | NTUA | Neutron Beam Characterization at the Athens Tandem Accelerator NCSR "Demokritos" |
| 12.00 - 12.15 | P. Grigoriadou | UOI | CONY - COmputer code for Neutron Yield calculations: The ⁷ Li(p,n) ⁷ Be and ³ H(d,n) ⁴ He reactions. |
| 12.15 - 12.30 | A. Kalamara | NTUA | Activation cross section of the (n,2n) reaction on Hf isotopes |
| 12.30 - 12.45 | T.J. Mertzimekis | UOA | The UoA online database for nuclear electromagnetic moments data: Status and perspectives |
| 12.45 – 13.00 | I. Savvidis | AUTH | A Prospect to Nuclear Reactor Neutrino Detection via the Coherent Scattering with the Spherical Proportional Counter |
| 13.00 - 15.00 LUNCH BREAK / POSTER SESSION | | | |
| Session III – Chair: I. Savvidis | | | |
| 15.00 - 15.15 | M. Kokkoris | NTUA | On the Validation of Charged-Particle Differential Cross-Section Data at Low Energies |
| 15.15 - 15.30 | I.E. Stamatelatos | NCSR | Preanalysis of Neutron Activation Measurements in Shielding Penetrations at JET |
| 15.30 - 15.45 | P. Koseoglou | IKP-TUD | Neutron spectrum determination of a sub-critical nuclear reactor by multi-disc neutron activation technique |
| 15.45 - 16.00 | A. Dimitriou | UOC, NCSR | Atomic Physics at the 5MV Tandem at Demokritos: the UoC APAPES project |
| 16.00 - 16.15 | V. Paneta | NTUA, NCSR | Theoretical investigation of the ¹⁹ F(p,p0) differential cross section up to Ep=2.3 MeV |
| 16.15 - 16.30 | T.S. Kosmas | UOI | Modelling astrophysical and laboratory neutrinos: Simulated signals for space and Earth detectors |
| 16.30 - 16.45 | V. Prassa | UOZ | High-K isomers in transactinide nuclei close to N=162 |
| 16.45 – 17.15 | COFFEE BREAK | | |
| Session III – Chair: H. Florou | | | |
| 17.15 – 17.30 | A. Clouvas | AUTH | Radon migration in soil and its relation to terrestrial gamma radiation |
| 17.30 – 17.45 | C. Tsabaris | HCMR | Preliminary analysis of in-situ radioactivity measurements in the south Caspian Sea |
| 17.45 – 18.00 | F.K. Pappa | HCMR, NTUA | Temporal variation of ¹³⁷ Cs profiles in Lemnos deep basin, North Aegean Sea, Greece |
| 18.00 - 18.15 | E.G. Androulakaki | HCMR, NTUA | Monte Carlo based full spectrum analysis of NaI(Tl) spectra acquired in the marine environment |
| 18.30 – 20.00 HNPS GENERAL ASSEMBLY | | | |
| 21.00 : | CONFERENCE DINNER | | |

SATURDAY 23.05.2015

| Time | Speaker | Affiliation | Title |
|---------------------------------------|---------------|-------------|---|
| Session V – Chair: I. E. Stamatelatos | | | |
| 10.00 – 10.15 | J. Kafef-Ezra | UOI | The rebirth of radiation therapy with kV X-rays |
| 10.15 – 10.30 | H. Florou | NCSR | Integrating the radiological impact assessment in all life organization levels by an innovative tool based on nuclear applications and cytogenetic observations |
| 10.30 – 10.45 | E. Katsarou | UOI | Dose Distribution near Inhomogeneities |
| 10.45 – 11.00 | J. Strologas | UOI | C-SPECT, a novel cardiac single-photon emission computed tomography system |
| 11.00 – 11.30 | COFFEE BREAK | | |

| | | | |
|---------------------------------|-----------------------|-----------|--|
| Session IV – Chair: T.S. Kosmas | | | |
| 11.30 – 11.45 | Ch.C. Moustakidis | AUTH | R-mode constraints from neutron star equation of state |
| 11.45 – 12.00 | T. Gaitanos | AUTH, UOG | Equation of State with Momentum Dependent Constraints |
| 12.00 – 12.15 | D.K. Papoulias | UOI | Probing electromagnetic neutrino properties within the non-standard neutrino nucleus interactions |
| 12.15 – 12.30 | L.C. Kazantzidis | UOI | Simulation of neutrino emission in hadronic microquasar jets |
| 12.30 – 12.45 | E.-D. S. Paspaliaris | UOI | The role of magnetic fields in the formation and propagation of hadronic microquasar jets |
| 12.45 – 13.00 | F. K. Anagnostopoulos | UOI | Development of numerical tools for phenomenological description of neutrino emission from microquasars |

HNPS 2015 CLOSING

| POSTERS | First Author | Affiliation | Title |
|---------|--------------------------------|-------------|--|
| P01 | G. Eleftheriou | NTUA, HCMR | Model exercise of radionuclides' deposition on Gulf Thermaikos and its catchment |
| P02 | I. E. Stamatelatos | NCSR | Bremsstrahlung Spectra Characterization by Photo-Activation: Preliminary Results |
| P03 | S. Doukas | UOI | Determination of the effective solid angle of the $1s2s2p^4P$ metastable auger decay in fast ion-atom collisions using Simion 8.1 in a Monte-Carlo type simulation |
| P04 | G. Marangouli | NTUA | Computational study of the neutron flux produced by the $^2H(d,n)^3He$ |
| P05 | E. Batziou | UOA | Modeling radiative proton-capture reactions in mid-heavy nuclei |
| P06 | A. Karailias | UOA | The Athens Mobile γ -Spectrometry System (AMESOS) |
| P07 | I.M. Tsodoulos | UOI | Analysis of uncertainties associated with different factors used to determine the age of sediments with the Optically Stimulated Luminescence method |
| P08 | M. Alexandropoulou | UOI | A preliminary study of mosses as biomonitors of ^{137}Cs activity in the air of Ioannina city |
| P09 | E. Mitsi | UOA | RICOCHET: A quick-and-dirty approach to analyze μ -XRF synchrotron data using open-source utilities |
| P10 | V. Michalopoulou – Petropoulou | HCMR, NTUA | Measurement of radionuclides and heavy metals concentration in surface sediments from the coastal zone of Lavreotiki peninsula |
| P11 | N. Lagopati | UOI, UOA | Quantification of 3D SPECT stress / rest volume differences in Myocardium Perfusion Imaging |
| P12 | G. Provatas | NCSR | Calibration of Radiation Monitors |
| P13 | N. Lagopati | UOI, UOA | Volume Quantification of ^{123}I -DaTSCAN Imaging for the Differentiation and Grading of Essential Tremor and Parkinsonism |
| P14 | N. Sarlikiotis | GAEC, NCSR | MCNP model and validation of the EEAE ACCUSCAN Whole Body Counter |
| P15 | A. Dimitriou | UOC, NCSR | Production of He-like ionic beams in both pure ground ($1s^2$) and mixed state ($1s^2, 1s2s$) with the use of Gas and Foil post-strippers for zero-degree Auger Projectile Electron Spectroscopy |
| P16 | I. Kotopoulou | UOA | Natural Radioactivity in Marine Sediment Cores from the Shallow-sea Hydrothermal System of Milos Island, Greece |
| P17 | V. Tsakstara | UOI | The Cobra experiment as detector of Coherent ν -nucleus scattering |

Table of Contents

Oral Presentations

| | |
|---|----|
| 1) Neutron capture data for unstable nuclei – Astrophysical quests and experimental challenges: F. Käppeler | 1 |
| 2) New Instruments for Nuclear Astrophysics: M. Axiotis , A. Lagoyannis, G. Provas, V. Foteinou, A. Karydas, V. Kantarelou, D. Bazzacco, C.R Alvarez, D.R. Napoli, R. Menegazzo and S.V. Harissopulos | 8 |
| 3) Study of capture reactions in inverse kinematics relevant to nuclear astrophysics: V. Foteinou, A. Lagoyiannis, M. Axiotis, G. Provas and S. Harissopulos | 15 |
| 4) A review of the fission programme at the CERN n_TOF facility: A. Tsinganis, on behalf of the n_TOF Collaboration | 16 |
| 5) Neutron induced fission cross-section of ²⁴⁰ Pu(n,f): first results from n_TOF (CERN) Experimental Area II: A. Tsinganis, A. Stamatopoulos, N. Colonna, R. Vlastou, P. Schillebeeckx, A. Plompen, J. Heyse, M. Kokkoris, M. Barbagallo, E. Berthoumieux, M. Calviani, E. Chiaveri and the n_TOF Collaboration..... | 22 |
| 6) Determination of the Neutron Beam Spatial Profile at n_TOF EAR-2 using the CR-39 Track Detectors: Z. Eleme, M. Alexandropoulou, A. Georgiadou, K.G. Ioannides, M. Kokkoris, N. Patronis, T. Stamatopoulos, K.C. Stamoulis, A. Tsiganis, R. Vlastou and the n_TOF Collaboration | 28 |
| 7) Neutron Beam Characterization at the Athens Tandem Accelerator NCSR “Demokritos”: R. Vlastou, D. Sigalas, A. Kalamara, M. Kokkoris, M. Anastasiou, M. Diakaki, M. Axiotis, A. Lagoyannis | 34 |
| 8) CONY - Computer code for Neutron Yield calculations: The ⁷ Li(p,n) ⁷ Be and ³ H(d,n) ⁴ He reactions: P. Grigoriadou , M. Kokkoris, N. Patronis and R. Vlastou | 39 |
| 9) Activation cross section of the (n,2n) reaction on Hf isotopes: A. Kalamara , M. Serris, A. Spiliotis , D. Sigalos , N. Patronis, M. Kokkoris , M. Diakaki, M. Axiotis, A. Lagoyannis and R. Vlastou | 47 |
| 10) The UoA online database for nuclear electromagnetic moments data: Status and perspectives: T.J. Mertzimekis | 55 |
| 11) A Prospect to Nuclear Reactor Neutrino Detection via the Coherent Scattering with the Spherical Proportional Counter: Ilias Savvidis, Ioannis Katsioulas | 56 |

| | |
|---|-----|
| 12) On the Validation of Charged-Particle Differential Cross-Section Data at Low Energies: M. Kokkoris, M. Axiotis, S. Dede, K.-A. Kantre, A. Lagoyannis, V. Paneta, K. Preketes-Sigalas, R. Vlastou | 57 |
| 13) Preanalysis of Neutron Activation Measurements in Shielding Penetrations at JET: I.E. Stamatelatos, T. Vasilopoulou, P. Batistoni, S. Conroy, B. Obryk, S. Popovichev and JET contributors | 58 |
| 14) Neutron spectrum determination of a sub-critical nuclear reactor by multi-disc neutron activation technique: Pavlos Koseoglou, Eleni Vagena, Metaxia Manolopoulou | 64 |
| 15) Atomic Physics at the 5 MV Tandem at Demokritos: The UoC APAPES project: I. Madesis , A. Dimitriou , S. Doukas, A. Laoutaris, C. Nounis, A. Lagoyannis, M. Axiotis, T. J. Mertzimekis, S. Harissopulos, O. Sise, E. P Benis, B. Sulik, and T.J.M. Zouros | 65 |
| 16) Theoretical investigation of the ${}^9\text{F}(p,p_0)$ differential cross section up to $E_p=2.3$ MeV: V. Paneta , A.F. Gurbich, M. Kokkoris | 69 |
| 17) Prediction of high-K isomeric states in transactinide nuclei close to $N= 62$: V.Prassa , Bing-Nan Lu, T. Niksic , D. Ackermann, D. Vretenar | 70 |
| 18) Radon migration in soil and its relation to terrestrial gamma radiation : F. Leontaris, A Clouvas , S Xanthos , M Antonopoulos-Domis | 76 |
| 19) Preliminary analysis of in-situ radioactivity measurements in the south Caspian Sea: C. Tsabaris, I. Moshkabadi, D.L. Patiris , S. Alexakis , Th. Dakladas | 78 |
| 20) Temporal variation of ${}^{137}\text{Cs}$ profiles in Lemnos deep basin, North Aegean Sea, Greece: F.K. Pappa, G.A. Kyriakidis, C. Tsabaris , D.L. Patiris , E.G. Androulakaki , H. Kaberi , V. Zervakis, M. Kokkoris, R. Vlastou, E. Krasakopoulou | 79 |
| 21) A rebirth of radiation therapy with kV X-rays?: John A. Kalef-Ezra | 85 |
| 22) Integrating the radiological impact assessment in all life organization levels by an innovative tool based on nuclear applications and cytogenetic observations: Heleny Florou, Nikolaos Evangeliou, Maria Sotiropoulou, Georgios Kuburas | 93 |
| 23) Dose Distribution near Tissue In-homogeneities in Megavoltage Radiation Therapy: Eleni Katsarou , Konstantina Karava , Ion Stamatelatos, John Kalef-Ezra | 94 |
| 24) SPECT, a novel cardiac single-photon emission computed tomography system: John Strologas , Scott Metzler, Xiaofen Zheng, M. Rozler, W. Chang | 99 |
| 25) R-mode constraints from neutron star equation of state Ch.C. Moustakidis and M.C. Papazoglou | 100 |
| 26) Non-Linear Derivative Interactions in Relativistic Hydrodynamics: T. Gaitanos , M. Kaskulov | 112 |
| 27) Probing electromagnetic neutrino properties within the tensor non-standard neutrino- nucleus interactions: D.K. Papoulias , T.S. Kosmas | 119 |

| | |
|---|-----|
| 28) Simulation of neutrino emission in hadronic microquasar jets L.C. Kazantzidis, T. Smponias, T.S. Kosmas..... | 126 |
| 29) The role of magnetic fields in the formation and propagation of hadronic microquasars jets: E.-D. S. Paspaliaris , T. Smponias , T. S. Kosmas | 127 |
| 30) Development of numerical tools for phenomenological description of neutrino emission from microquasars F. K. Anagnostopoulos, T. Smponias, T. S. Kosmas..... | 134 |

Poster Contributions

| | |
|--|-----|
| 31) Model exercise of radionuclides' deposition on Gulf Thermaikos and its catchment: G. Eleftheriou , L. Monte and C. Tsabaris | 135 |
| 32) Bremsstrahlung Spectra Characterization by Photo-Activation: Preliminary Results: E. Ntalla ² , T. Vasilopoulou , P. Georgolopoulou ² and I.E. Stamatelatos | 136 |
| 33) Determination of the effective solid angle of the $s2s2p^4p$ metastable Auger decay in fast ion-atom collisions using simion 8. in a monte-carlo type simulation: S. Doukas, I. Madesis ^{2,3} , A. Laoutaris ⁴ , A. Dimitriou ^{2,3} , E.P. Benis ⁵ , and T.J.M. Zouros ^{2,3} | 141 |
| 34) Computational study of the neutron flux produced by the $^2\text{H}(d,n)^3\text{He}$ reaction: G. Marangouli , M. Kokkoris , A. Lagoyannis, N. Patronis , R. Vlastou , , M. Diakaki . | 143 |
| 35) Modeling radiative proton-capture reactions in mid-heavy nuclei: E. Batziou, V. Koutsilianou, L. Stavropoulos, A. Psaltis, and T.J. Mertzimekis* | 145 |
| 36) The Athens Mobile γ -Spectrometry System (AMESOS): Karailias , V. Lagaki , C. Katsiva , A. Kanellakopoulos , T.J. Mertzimekis , F-C. Kafantaris, A. Godelitsas | 150 |
| 37) Analysis of uncertainties associated with different factors used to determine the age of sediments with the Optically Stimulated Luminescence method: I.M. Tsodoulos , K. Stamoulis , C. Papachristodoulou , K. Ioannides | 154 |
| 38) A preliminary study of mosses as biomonitors of ^{137}Cs activity in the air of Ioannina city: K. Stamoulis , M. Alexandropoulou , S. Petsios , C. Papachristodoulou , C. Papadopoulou, K. G. Ioannides | 159 |
| 39) RICOCHET: A quick-and-dirty approach to analyze μ -XRF synchrotron data using open-source utilities: Eleni Mitsi and Theo J. Mertzimekis | 162 |

- 40) Measurement of radionuclides and trace metals concentration in surface sediments from the coastal zone of Lavreotiki peninsula:
V. Michalopoulou-Petropoulou , C.Tsabaris , D.L. Patiris ,E.G. Androulakaki , Eleftheriou , M. Kokkoris, F.K. Pappa , R. Vlastou 166
- 41) MCNP model of the EEAE ACCUSCAN Whole Body Counter :
N. Sarlikiotis , C. Potiriadis , M. Nikolaki , and I.E. Stamatelatos 171
- 42) Quantification of 3D SPECT stress / rest volume differences in Myocardium Perfusion Imaging:
Nefeli Lagopati , Marios Sotiropoulos, John Striligas, Maria Gavrilileli, Konstantinos Krikonis, Maria Lyra 175
- 43) Calibration of Radiation Monitors:
G. Provatas , M. Axiotis, V. Foteinou, S. Harissopoulos, I. Sandberg , I. A. Daglis' and P. Jiggins 176
- 44) Volume Quantification of ¹²³I-DaTSCAN Imaging for the Differentiation and Grading of Essential Tremor and Parkinsonism :
Nefeli Lagopati , John Striligas, Maria Gavrilileli, Maria Lyra..... 177
- 45) Production of He-like ionic beams in both pure ground (s^2) and mixed state ($s^2, s2s$) with the use of Gas and Foil post-strippers for zero-degree Auger Projectile Electron Spectroscopy:
A. Laoutaris , I. Madesis, A. Dimitriou, A. Lagoyannis, M. Axiotis, E. P. Benis, T.J.M. Zouros 179
- 46) Natural Radioactivity in Marine Sediment Cores from the Shallow-sea Hydrothermal System off Milos Island, Greece:
I. Kotopoulou , T.J. Mertzimekis, A. Godelitsas , R. Price, D.A. Fike, J.P. Amend, W.P. Gillhooly, G.K. Druschel 180