

CURRICULUM VITAE

A.1 Personal

Name and Surname: Theocharis KOSMAS

University Position: Ass. Professor, Dept. of Physics, University of Ioannina, Greece.

Date and Place of Birth: 26 June 1949, Ioannina, Greece.

Nationality: Greek

Marital Status: Married with two children.

Military Services: 24 months (20/10/1969 - 20/10/1971)

Languages: Greek (mother language), English, German (working knowledge)

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A.2 Educational Background

University of Ioannina, 6/1985-11/1988: Ph.D. in Physics.

N.R.C. Demokritos, Athens, Greece: Post-graduate studies (9/1981- 4/1983).

University of Ioannina, Greece, 10/1971-6/1975: Ptycheion in Physics (Very-good, 7.21/10).

Pedagogical School of Vellas, Ioannina, Greece, 9/1963-6/1969: Ptycheion in Elementary Education Teaching (Excellent, 8.93/10).

A.3 Scientific Employment and Academic Responsibility

Research Scientist, DFG, BAT IIa, Institute für Theoretische Physik, Universität Tübingen (2/1996-1/1997).

Lecturer (Permanent Position), Theoretical Physics Division, University of Ioannina, Greece (5/1989-4/1995)

Institut für Theoretische Physik der Universität Tübingen, Tübingen, Germany, 6-8/1989, 6-8/1990, 8-9/1991,
6-7/1992, 11-12/1992, 10-12/1993. Visiting Researcher.

Institut für Theoretische Physik II Ruhr-Universität Bochum, Germany, 9/1990-8/1991. Research Associate.

Research student, Theoretical Nuclear Physics, Tandem Accel. Lab. N.R.C. Demokritos, Athens, Greece (4/1983-
9/1984)

Secondary Education of Ioannina, Teacher of Physics (9/1975 - 9/1977) .

A.4 Teaching Experience

A) University of Ioannina, Department of Physics. The following graduate courses (9/2002-present): Modern Physics

B) University of Ioannina, Department of Physics, the following undergraduate courses (9/1989-present): Mathematics for Physicists, Vector Analysis, Mathematical Methods of Physics, Group theory, Mathematical Physics under Computer, Analytical Mechanics, Modern Physics, Quantum Theory

C) Pedagogical Department, University of Ioannina (9/1989-6/1990,9/1991-6/1992): Basic Physics.

D) Department of Physics, University of Ioannina, Teaching assistant on: Mathematical Physics, Electrodynamics, General Physics, Experimental Physics (1977-89).

E) Pedagogical School of Vellas: General Physics (1979-81).

A.5 Professional Memberships and Committee services

Member of the Organizing Committee of : The 4th Hellenic Symposium on Nuclear Physics (Ioannina, Greece, 10/1991)

Chair of the Organizing Committee of : The 9th Hellenic Symposium on Nuclear Physics (Ioannina, Greece, 9/1998)

Chair of the Organizing Committee of : Int. Conference on Symmetries in Physics at intermediate and high energies, Ioannina, Greece, 10/1998.

Chair of the Organizing Committee of : the 12th Hellenic Symposium on Nuclear Physics (Ioannina, Greece, 5/2002)

Serving as referee to *Progress in Particle and Nuclear Physics*

Member of :
the Hellenic Physical Society
the Hellenic Nuclear Physics Society
the European Physical Society (EPS)

Member of the Examination Committee for a Dh.D. Candidate: (i) University of Thessaloniki, Department of Physics, (ii) University of Ioannina, Department of Physics, (iii) University of Athens, Department of Physics.

Graduate Students: 3 PhD Students: 1

A.6 Scholarships and Awards

European Physical Society, (9/1993)

European Economic Community Grant, Universität Tübingen, Germany 6-8/1989, 6-8/1990, 8-9/1991, 6-7/1992.

Research Associateship, Bundesministerium für Forschung und Technologie, Germany, 4-8/1991

Visiting Scientist Fund, Federation agreement, International Centre for Theoretical Physics, Trieste, Italy, 5/1989, 5/1993

Entered the Physics Department, University of Ioannina, in nationwide Entrance Examinations (9/1971-6/1972)

Five Annual Scholarships, Greek National Scholarship Foundation, 10/1963-6/1969

A.7 Participation in Schools and Conferences

International School on Nuclear Physics, Erice, Sicily, Italy (9/1993), Seminar on: "Description of (μ^- , e^-) conversion.

4rd Hellenic School on Elementary Particle Physics, Corfu, Greece (9/1993).

3rd Hellenic School on Elementary Particle Physics, Corfu, Greece (9/1989).

Physics Orientation Summer School 1981, NCSR "Demokritos", Aghia Paraskevi Attikis, Greece (7/1981).

3rd workshop of the Greek Physical Society, Kalamata, Greece, 9/1983.

1st workshop of the Greek Physical Society, Thessaliniki, Greece 4/1977.

Summer School in Physics, NRC Demokritos, Athens, (Jul., 1981).

E.P.S. Conference on "Nuclear Reactions", Helaklio, Crete (6/1984).

International School on "Nuclear Heavy Ion Interactions", Brasov, Romania (9/1984).

E.P.S. Conference on "Synthesis and Structure of Exotic Nuclei and Atoms", Varna, Bulgaria (9/1985). Poster presentation.

CERN School of Physics, Lefkas, Greece (9-10/1988).

5th Conference of the Hellenic Physical Society, Athens (May, 1989). Talk on "The exotic muon-to-electron conversion".

4th workshop on "Perspectives in Nuclear Physics at Intermediate Energies", ICTP, Trieste, Italy (5/1989).

3rd Hellenic School on Elementary Particle Physics, Corfu (9/1989).

4th Conference of the Hellenic Society for the Study of High Energy Physics, Ioannina (1/1990).

1st Hellenic Symposium on Theoretical Nuclear Physics", Thessaloniki (4/1990). Talk on "Closure approximation in the study of the muon-to-electron conversion".

Workshop on "Nuclear Physics at Intermediate Energies", Ruhr-University Bochum, Germany (2/1991).

Physics of Hadrons and nuclei", Darmstadt, Germany (4/1991).

Workshop on "Intermediate Energy Physics", KFA Julich, Germany (5/1991).

Workshop on "COSY Physics", Bochum, Ruhr-University Bochum, Germany (7/1991).

3rd Hellenic Symposium on Nuclear Physics, Athens (5/1992). Talk on "The influence of the nuclear surface diffuseness on the transition charge density"

6th workshop on "Perspectives in Nuclear Physics at Intermediate Energies", ICTP, Trieste, Italy (5/1993).

Hellenic School on Elementary Particle Physics, Corfu (9/1993).

4th Hellenic Symposium on Nuclear Physics, Ioannina (10/1993). Participation and talk.

International School on Nuclear Physics, Erice, Sicily, Italy (9/1993), Invited speaker: "Description of the $\mu - e$ conversion".

5th Hellenic Symposium on Nuclear Physics, Patras (5/1994). Participation with talk "Inclusive neutrino-nucleus reaction cross section".

6th Hellenic Symposium on Nuclear Physics, Pireus, (5/1995). Participation with talk.

4th Conference of the Hellenic Society for the Study of High Energy Physics, Ioannina (4/1996). Participation with talk "The lepton flavor violating $\mu - e$ conversion in nuclei".

Physics of Hadrons and nuclei, Stuttgart, Germany (3/1996). Talk on: "The flavor and lepton number violating $\mu^- \rightarrow e^+$ conversion in nuclei".

Summer School on Physics with Neutrinos, Zuoz, Switzerland, (8/1996). Talk on: "Neutrino mixing in the exotic $\mu - e$ conversion in nuclei".

Int. Conference on Non-accelerator Nuclear Physics, NANP-97, Dubna, Russia (6/1997). Invited speaker on: "Rare muon decays".

Int. Symposium on Nuclear Astrophysics, "Nuclei in the COSMOS" (7/1998). Poster presentation.

Int. Summer School on "Structure and stability of nucleon and nuclear systems", Predeal, Romania (8/1998). Invited Speaker on: (i) "The muon-to-electron conversion in nuclei" and (ii) "Neutrino-nucleus collision at Intermediate Energy".

4th Conference of the Hellenic Society for the Study of High Energy Physics, Thessaloniki (4/1999). Talk on "Bounds on LFV parameters from the exotic muon-to-electron conversion".

10th Hellenic Symposium on Nuclear Physics, NRC Demokritos, Athens, (5/1999). Talk on "Nuclear structure dependence of the exotic $\mu - e$ conversion branching ratio".

Int. Conference on Non-accelerator Nuclear Physics, NANP-99, Dubna, Russia (7/1999). Invited Speaker on: "Lepton flavor violation: Constraints from the exotic $\mu - e$ conversion".

Int. Conference on MEDEX-99, Prague (8/1999). Talk on: "Upper limits for lepton flavor violation from the $\mu - e$ conversion in nuclei"

EURO conference on Electromagnetic Interactions with Nucleons and Nuclei, Santorini, Greece (10/1999). Poster presentation.

HEP 2000: The annual Workshop of the Hellenic Society for the Study of High Energy Physics, Ioannina (4/2000).

11th Hellenic Symposium on Nuclear Physics, Thessaloniki (5/2000). Talk on "The mean excitation energies of the muon-to-electron conversion in nuclei".

Conf. on New Initiatives in Lepton Flavor Violation and Neutrino Oscillations with very intense muon and neutrino beams, Hawaii, USA, (Oct. 2-6,2000). Invited talk on "The exotic $\mu - e$ conversion: An interplay of nuclear, particle and non-standard physics".

B. RESEARCH EXPERIENCE

B.1 Research Visits and Invited Seminars

Institute of Theoretical Physics, University of Bochum, Germany (8/1989), seminar: "The muon number violating $\mu - e$ conversion in nuclei".

Institute of Theoretical Physics, University of Bochum, Germany (10/1990), seminar: "Sum-rule approach for the semileptonic processes: $\mu - e$ conversion in nuclei and neutrino-nucleus reactions".

Institute of Theoretical Physics, University of Dortmund, Germany (5/1991), seminar: "The exotic process: $\mu - e$ conversion in a nucleus".

Aristotle University of Thessaloniki, Institute of Theoretical Physics, seminar: "Nuclear densities with fractional occupation probabilities of the orbits" (6/1992).

University of Athens, Institute of Theoretical Physics (7/1993), seminar: "Transition rates of the $\mu - e$ conversion by using QRPA".

Institute of Theoretical Physics, University of Valencia, Spain, (7/1994), seminar: "Nuclear aspects of the exotic $\mu - e$ conversion".

NRC Demokritos, Athens, Institute of Nuclear and Particle Physics (2/1995), seminar: "Study of the $\mu - e$ conversion by using various refinements of QRPA".

Dept. of Physics University of Ioannina, (3/1995), seminar: "Charged current neutrino-nucleus reactions at intermediate energies".

Institute of Theoretical Physics, University of Tübingen, Germany, (1/1996), seminar: "Muon-number violating processes in nuclei".

Institute of Physics, Maria Curie-Skłodowska University, Lublin, Poland, (11/1996), seminar: "The exotic processes $\mu^- \rightarrow e^-$ and $\mu^- \rightarrow e^+$ in nuclei".

Institute of Theoretical Physics, University of Valencia, Spain, (1/1997), seminar: "Rare muon decays".

Department of physics and astronomy, University of Basel, Switzerland, (12/1998), seminar: "Charged current neutrino-nucleus reactions".

Department of Physics and Astronomy, University of Basel, Switzerland, (4/1999), seminar: "The flavor violating $\mu - e$ conversion in nuclei".

Institute of Theoretical Physics Univ. of La Plata, Argentina, (11/2000), seminar: "The $\mu - e$ conversion in nuclei as a probe to study new physics".

Department of Physics, Santa Maria University, Valparaíso, Chile (11/2000), seminar: "The exotic $\mu - e$ conversion in nuclei. A symbiosis of nuclear and particle Physics".

B.2 Main Areas of Expertise

Weak Interactinos.

- (i) Muon and tau Physics: Rare Decays, Muon Capture, $\mu^- \rightarrow e^\pm$ conversion.
- (ii) Neutrino Physics. Neutrino-nucleus cross sections.
- (iii) Dark Matter: WIMPs, Cold dark matter, Direct detection of CDM candidates.

Nuclear Structure Models: Shell Model, Collective Models (RPA, quasi-particle RPA, Deformed F-H)

Structure of hadrons and nuclei: Nuclear Densities, Nucleon Form Factors, Quark Models.

Mathematical methods in physics: Group theory, Computational Techniques.

B.3 Participation in Scientific Proposals

Many body description of hadrons and nuclei, EU Network Human Capital and Mobility between: Uv. Ioannina, NCSR Demokritos, Uni. Tübingen, Uni. Pierre et Marie Curie, Paris, Uni. Torino, Uni. Valencia, Uni. Barcelona, Instituto de Estructura de la Materia-Madrid, Uv. Salamanca.

"*Generalized momentum distribution in nuclei*". Collaboration between: Division of Nuclear and Particle Physics, University of Athens (proposer E. Mavrommatis) and University of Ioannina (T. S. Kosmas).

PECO, EU Network.

INTAS, EU Network.

INTEREG II, INFN Catania - Uni. Ioannina.

IKY-DA-02, German-Greece Joint Project, Uni. Tuebingen - Uni. Ioannina.

C. PUBLICATIONS

C.1 Books and Editorship

- [1] Study of the exotic reaction (μ^-, e^-) in the presence of nuclei, T.S. Kosmas, Ph.D. Thesis, Ioannina University Press, (1989), 144 p.
- [2] Proc. 4th Hellenic Symposium on Nuclear Physics, eds. X. Aslanoglou, T.S. Kosmas and G. Pantis, Ioannina University Press, (1994), 228 p.
- [3] Symmetries in intermediate and high-energy physics, A. Faessler, T.S. Kosmas, and G.K. Leontaris, Springer Tracts in Modern Physics, 163 (2000) 316 p,
- [4] Advances in nuclear physics and related areas V. 9, eds. T.S. Kosmas and N. Nicolis, Ioannina University Press, (2000), 390 p.

- [5] Advances in nuclear physics and related areas, V. 11, eds. N. Nicolis and T.S. Kosmas, Ioannina University Press, to appear, 310 p.

C.2 Articles in Refereed Journals

- [1] Nuclear matrix elements for the coherent $\mu - e$ conversion process, T.S. Kosmas and J.D. Vergados, *Phys. Lett. B* **215** (1988) 460-464
- [2] Sum rules for the inclusive $\mu - e$ conversion exotic reaction, T.S. Kosmas and J.D. Vergados, *Phys. Lett. B* **217** (1989) 19-24
- [3] Lepton Flavour Violation in Supergravity Theories, T.S. Kosmas, G.K. Leontaris and J.D. Vergados, *Phys. Lett. B* **219** (1989) 457-463.
- [4] Study of the flavour violating (μ^-, e^-) conversion in nuclei, T.S. Kosmas and J.D. Vergados, *Nucl. Phys. A* **510** (1990) 641-670.
- [5] Semiclassical approximation for the isotopic shift of charge radii in Ca isotopes, G.S. Anagnostatos, T.S. Kosmas, E.F. Hefter and C.N. Panos, *Can. J. Phys.* **69** (1991) 114-123.
- [6] Nuclear densities with fractional occupation probabilities of the states, T.S. Kosmas and J.D. Vergados *Nucl. Phys. A* **536** (1992) 72-86.
- [7] Coherent and incoherent (μ^-, e^-) conversion in nuclei, H.C. Chiang, E. Oset, T.S. Kosmas, A. Faessler and J.D. Vergados, *Nucl. Phys. A* **559** (1993) 526-542.
- [8] A discussion of the (μ^-, e^-) conversion, T.S. Kosmas, A. Faessler, J.D. Vergados and E. Oset, *Prog. Part. Nucl. Phys.* **32** (1994) 335.
- [9] Study of the muon number violating (μ^-, e^-) conversion in nuclei by using quasi-particle RPA, T.S. Kosmas, J.D. Vergados, O. Civitarese and A. Faessler, *Nucl. Phys. A* **563** (1994) 637-656.
- [10] Lepton flavor non-conservation, T.S. Kosmas, G.K. Leontaris and J.D. Vergados, *Prog. Part. Nucl. Phys.* **33** (1994) 397-447; e-Print: hep-ph/9312217
- [11] (μ^-, e^-) conversion; A symbiosis of particle and nuclear Physics, T.S. Kosmas and J.D. Vergados, *Phys. Reports*, **33** (1996) 251-266; e-Print: nucl-th/9408011
- [12] Charged current neutrino-nucleus cross sections at intermediate energies, T.S. Kosmas and E. Oset, *Phys. Rev. C* **56** (1996) 526-534.
- [13] Cold dark matter in SUSY theories: The role of nuclear form factors and the folding with LSP velocities, T.S. Kosmas and J.D. Vergados, *Phys. Rev. D* **55** (1997) 1752-1764.
- [14] The new limits of the neutrinoless (μ^-, e^-) conversion branching ratio, T.S. Kosmas, A. Faessler and J.D. Vergados, *J. Phys. G* **23** (1997) 693-703.
- [15] State-by-state calculations for all channels of the exotic (μ^-, e^-) conversion process, T.S. Kosmas, A. Faessler, F. Simkovic and J.D. Vergados, *Phys. Rev. C* **56** (1997) 526-534.
- [16] Detailed study of the incoherent (μ^-, e^-) conversion rate: Elimination of spurious contaminations from the 1^- states, J. Schwieger, A. Faessler and T.S. Kosmas, *Phys. Rev. C* **56** (1997) 2830-2838.
- [17] Muon number violating processes in nuclei, T.S. Kosmas, J.D. Vergados and A. Faessler, *Phys. Atom. Nucl.* **61** (1998) 1166.
- [18] The exotic (μ^-, e^-) conversion rates by explicit renormalized quasiparticle RPA calculations, J. Schwieger, T.S. Kosmas and A. Faessler, *Phys. Lett. B* **443** (1998) 7-15.
- [19] Searching for cold dark matter: A case of coexistence of Supersymmetry and nuclear physics, J.D. Vergados and T.S. Kosmas, *Phys. Atom. Nucl.* **61** (1998) 1066-1080; e-Print: hep-ph/9802270
- [20] QRPA in $\beta\beta$ - and (μ^-, e^-) processes, J. Schwieger, A. Faessler and T.S. Kosmas, *Czech. J. Phys.* **46** (1998) 233.
- [21] New limits for lepton-flavor violation from the (μ^-, e^-) conversion in ^{27}Al , T. Siiskonen, J. Suhonen, and T.S. Kosmas, *Phys. Rev. C* **60** (Rapid Communication) (1999) 62501-62504.
- [22] Lepton flavor violation constraints from the exotic (μ^-, e^-) conversion T.S. Kosmas and S. Kovalenko, *Phys. Atom. Nucl.* **63** (2000) 1158-1164; e-Print: hep-ph/0002070
- [23] Beyond the one-body momentum distribution in finite nuclei, P. Papakonstantinou, E. Mavrommatis, and T.S. Kosmas, *Prog. Part. Nucl. Phys.* **52** (2000) 321.
- [24] The inclusive $\mu - e$ conversion process with renormalized quasiparticle RPA, T.S. Kosmas, Z. Ren, and A. Faessler, *Nucl. Phys. A* **665** (2000) 183-199.
- [25] Upper limits for lepton-flavor violation from the exotic (μ^-, e^-) conversion T.S. Kosmas, T. Siiskonen, and J. Suhonen, *Czech. J. Phys.* **51** (2001) 459-469.

- [26] Generalized momentum distribution in finite nuclei, P. Papakonstantinou, E. Mavrommatis, and T.S. Kosmas, Nucl. Phys. **A 673** (2000) 171-188.
- [27] Neutrino-nucleus collision at Intermediate energies, T.S. Kosmas and E. Oset, World Sci. ISPN 3774 (1999) 471.
- [28] Shell model calculations for LSP scattering off light nuclei, P.C. Divari, T.S. Kosmas, J.D. Vergados, and L.D. Skouras, Phys. Rev. **C 61** (2000) 54612.
- [29] Recent highlights on neutrino–nucleus interactions, T.S. Kosmas and E. Kolbe, Springer Tracts in Modern Physics, **163** (2000) 199–225.
- [30] LSP-nucleus scattering cross sections, T.S. Kosmas and J.D. Vergados, World Sci. ISPN 3075 (1997) 379.
- [31] Realistic nuclear matrix elements for the lepton-flavor violating (μ^- , e^-) conversion in ^{27}Al and ^{48}Ti , T. Siiskonen, J. Suhonen and T.S. Kosmas, Phys. Rev. **C 62** (2000) 035502.
- [32] The muon to electron conversion in nuclei, T.S. Kosmas, J.D. Vergados and A. Faessler, World Sci. ISPN 3774 (1999) 471.
- [33] Exotic (μ^- , e^-) conversion in nuclei and R-parity violating Supersymmetry, A. Faessler, T.S. Kosmas, S. Kovalenko, and J.D. Vergados, Nucl. Phys. **B 587** (2000) 25-44.
- [34] B-Quark mediated neutrinoless $\mu - e$ conversion in presence of R-parity violation, T.S. Kosmas, S. Kovalenko and I. Schmidt, Phys. Lett. **B 519** (2001) 78-82; e-Print: hep-ph/0107292
- [35] Exotic $\mu - e$ conversion in nuclei: Energy moments of the transition strength and average energy of the outgoing e^- , T.S. Kosmas, Nucl. Phys. **A683** (2001) 443-462.
- [36] Nuclear $\mu - e$ conversion in strange quark sea, T.S. Kosmas, S. Kovalenko, and I. Schmidt, Phys. Lett. **B 511** (2001) 203; e-Print: hep-ph/0102101
- [37] The role of nuclear form-factors in Dark Matter calculations, T.S. Kosmas and J.D. Vergados, Phys. Lett. **B**, submitted, e-Print: nucl-th/9509026.
- [38] Exotic muon-to-positron conversion in nuclei: partial transition sum evaluation by using shell model, P.C. Divari, J.D. Vergados, T.S. Kosmas and L.D. Skouras, Part. Nucl. Lett. **104** (2001) 53-70.
- [39] Closed expressions for the nuclear moments in semi-leptonic processes, V.Ch. Chasioti and T.S. Kosmas, Czech. J. Phys. **52** (2002) 467-479; e-Print: nucl-th/0202061.
- [40] The exotic double charge exchange $\mu - e+$ conversion in nuclei, P.C. Divari, J.D. Vergados, T.S. Kosmas and L.D. Skouras, Nucl. Phys. **A703** (2002) 409-431.
- [41] Current nuclear physics issues in studying the neutrinoless $\mu - e$ conversion in nuclei, T.S. Kosmas, Prog. Part. Nucl. Phys. **48** (2002) 307-316.
- [42] On the muon-nucleus integrals entering the neutrinoless $\mu - e$ conversion rates, T.S. Kosmas and I.E. Lagaris, J. Phys. **G 28** (2002) 2907-2920.
- [43] The two-body momentum distribution in finite nuclei, P. Papakonstantinou, E. Mavrommatis and T.S. Kosmas, Nucl. Phys. **A 713** (2003) 81-94.
- [44] On the nuclear dependence of the $\mu - e$ conversion branching ratio, T.S. Kosmas, Nucl. Instrum. Meth. **A 503** (2003) 247-251; e-Print: nucl-th/0108045
- [45] Transition matrix elements for $\mu - e$ conversion in Ge-72 using the deformed Hartree-Fock method, T.S. Kosmas, A. Faessler and R. Sahu, Phys. Rev. **C 68** (2003) 054315.
- [46] Nuclear matrix elements for exclusive neutrino-nucleus reactions, V.Ch. Chasioti and T.S. Kosmas, Part. Nucl. Lett., submitted; e-Print: nucl-th/0202062.
- [47] The effects of deformation and pairing correlations on nuclear ground state properties, Ch.C. Moustakidis, T.S. Kosmas, F. Simkovic and A. Faessler, Phys. Rev. **C**, submitted.
- [48] On the exact removing of spurious components in QRPA calculations, J.D. Vergados, T.S. Kosmas, and O. Civitarese, Phys. Rev. **C**, to be submitted.
- [49] Compact analytic expressions for the basic single particle matrix elements of semileptonic processes, V.Ch. Chasioti and T.S. Kosmas, Phys. Lett. **B**, submitted.
- [50] Neural network techniques in solving Schrödinger and Dirac equations for τ^- and μ^- capture rates, N. Panagiotidis and T.S. Kosmas, Czech. J. Phys., in press.
- [51] Microscopic calculations of the LSP-nucleus scattering off the ^{71}Ga , ^{73}Ge and ^{127}I targets, E. Holmlund, M. Kortelainen, T.S. Kosmas, J. Suhonen, and J. Toivanen, Phys. Lett. **B**, in press.
- [52] Odd-mass RPA for the description of the $\mu^- \rightarrow e^-$ transition matrix elements in ^{197}Au , V.Ch. Chasioti, T.S. Kosmas, V. Rodin, and A. Faessler, Czech. J. Phys., in press.

- [53] Relativistic description of the exotic $\mu^- \rightarrow e^-$ conversion in nuclei, P.C. Divari and T.S. Kosmas, Nucl. Phys. A, to be submitted.

C.3 Articles in Conference Proceedings

- [1] The isomorphic size of the nucleon bag, G.S. Anagnostatos, C.N. Panos, T.S. Kosmas and J.C. Varvitsiotis, *Proc. Int. Conf. on Nuclear Structure, Florence, Italy, (1983)*.
- [2] The proton and neutron RMS charge radii and the sizes of their bags, G.S. Anagnostatos, T.S. Kosmas and C.N. Panos, *Proc. PANIC Int. Conf. Heidelberg, Germany, V. II (1984) p. I 55*.
- [3] Unforeseen trend of charge radii in Oxygen isotopes, G.S. Anagnostatos, T.S. Kosmas and C.N. Panos and S.E. Massen, *Proc. 1984 Work-Shop, Indiana University, Cyclotron Facility (1984)*.
- [4] Charge radii in Ca isotopes, T.S. Kosmas, G.S. Anagnostatos, E.F. Hefter and C.N. Panos, *Proc. 1984 Work-Shop, Indiana University, Cyclotron Facility (1984)*.
- [5] The R.M.S. charge radius in Oxygen isotopes, G.S. Anagnostatos, T.S. Kosmas, S.E. Massen and C.N. Panos, *Bull. Am. Phys. Soc.* 29 (1984) 1029.
- [6] A structural interpretation of Low Energy excited states in ^{17}O and $^{17}\text{F}^m$, G.S. Anagnostatos, C.N. Panos, T.S. Kosmas and J.C. Varvitsiotis, *Bull. Am. Phys. Soc.* 29 (1984) 1029.
- [7] Study of the exotic reaction (μ^-, e^-) in the presence of nuclei, T.S. Kosmas and J.D. Vergados, *Proc. 5th workshop of the Greek Physical Society, Athens (1989)*.
- [8] Lepton Flavour Violation in Supergravity Theories, T.S. Kosmas, G.K. Leontaris and J.D. Vergados, *Proc. Rare Decay Symposium, Vancouver, (1988) 475-479*.
- [9] Nuclear distributions, rms radii and form factors with the harmonic oscillator shell model, T.S. Kosmas and J.D. Vergados, *1st Hellenic Symp. on Theoretical Nuclear Physics (Thessaloniki 1990)*, eds. M. Grypeos, et. al., University of Thessaloniki, (1991) 92-97.
- [10] Nuclear form factors and closure approximation in the study of the (μ^-, e^-) conversion in nuclei, T.S. Kosmas and J.D. Vergados, *1st Hellenic Symp. on Theoretical Nuclear Physics (Thessaloniki 1990)*, eds. M. Grypeos, et. al., University of Thessaloniki, (1991) 86-91.
- [11] Nucleon momentum distribution with harmonic oscillator shell model and fractional occupation probabilities of the orbits, T.S. Kosmas and J.D. Vergados, *Proc. 2nd Hellenic Symp. on Nuclear Physics*, eds. G.S. Anagnostatos and D. Bonatsos, Demokritos Athens, (1991) p. 209-216
- [12] Nuclear densities and occupation probabilities of the surface orbits, T.S. Kosmas and J.D. Vergados, *Proc. 3rd Panipirotik Conference of Physics (Ioannina, 4/1992)*
- [13] The influence of the nuclear structure diffuseness on the transition charge densities, T.S. Kosmas and J.D. Vergados, *Proc. 3rd Hellenic Symp. on Nuclear Physics (Athens 1992)*, eds. R. Vlastou, E.N. Gazis and C.T. Papadopoulos, (N.T. University of Athens, 1993) p. 175-185.
- [14] Coherent and incoherent (μ^-, e^-) conversion in nuclei and background from μ^- decay in orbit, H.C. Chiang, E. Oset, T.S. Kosmas, A. Faessler, J.D. Vergados, *Proc. PANIC, (1993) 271-272*
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