

**CURRICULUM VITAE**

**JOHN D. VERGADOS**  
EMERITUS PROFESSOR OF THEORETICAL PHYSICS  
UNIVERSITY OF IOANNINA

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## CURRICULUM VITAE

### I. PERSONAL

Name: John Demetrius Vergados  
Citizenship: Greek  
Date and  
Place of Birth: Dec. 9, 1937-Sparta - Greece  
Married and father of three daughters and one son  
Address: Physics Department, University of Ioannina,  
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### II. STUDIES

1950-1956: Sparta High School  
1958-1962: University of Athens, Athens - Greece -BS (1963)  
1964-1968: University of Michigan, Ann Arbor Michigan  
U.S.A. - MS (1965), Ph.D. (1968)

### IIIa. OCCUPATIONS

1968-1971: Research Associate (post Doctoral Fellow) SUNY-Stony Brook, N.Y.  
1971-1978: Research Physicist, L.B.L., University of California, Berkeley, Cal.  
1971-1978: Assistant Professor, University of Pennsylvania, Philadelphia, Pa.  
1978-2005: Professor of Theoretical Physics, University of Ioannina,  
Ioannina-Greece  
2012-2016: Chairman, Board of Regents,  
Educational and Research Institute of Western Macedonia,  
Kozani, Greece.  
2009-Present: Professor Emeritus, University of Ioannina.

### IIIb. TEMPORARY OCCUPATIONS

1979-1981: Corresponding Fellow CERN, Geneva, Switzerland  
1983-1984: Visiting professor, University of Washington, Seattle, Wa, U.S.A.  
1982-1983 & 1986-1989: Chairman, Department of Physics,  
University of Ioannina, Ioannina-Greece  
1989-1990: Visiting physicist, Los Alamos National Laboratory, Los Alamos,  
N.M., USA  
1991- 1994: Rector, University of Ioannina  
1995-1996 : Visiting Professor, University of Cyprus, Nicosia, Cyprus  
2003-2004: Visiting Professor, University of Cyprus, Nicosia, Cyprus

2005-2006: Leave of absence for private reasons  
2006- 2007: Visiting Professor, University of Cyprus, Nicosia,Cyprus  
2007-2008: Visiting Professor, Cyprus University of Technology, Lemesos, Cyprus  
2012: Visiting Professor, Nanjing University, Nanjing, China  
2014: Visiting Professor, KAIST University and IBS, Daejeon, Korea  
Spring 2015: Distinguished Visiting Scientist, University of S. Carolina, Columbia, SC,  
USA  
Nov.2015-March 2016 : Visiting Scientist, ARC Centre of Excellence in Particle Physics  
at the Terascale and CSSM, University of Adelaide, Adelaide, Australia  
March.2016-May2016 : Visiting Professor, Nanjing University, Nanjing, China  
Fall 2016: Visiting Professor, KAIST University and IBS, Daejeon, Korea

#### **IV. FELLOWSHIPS - AWARDS**

- 1) **Humboldt Foundation Research Award(1998)**
- 2) Fulbright Foundation Fellowship (1964)
- 3) Greek Scholarship Foundation Fellowships: (1959-62), (1964-1968)

#### **V. MEMBERSHIPS**

- 1) American Physical Society  
(Elevated to the rank of Fellow)
- 2) Sigma Chi
- 3) Greek Physical Society
- 4) Greek Society for the Study of High Energy Physics  
(elected its president for the years 1985,1986,1987,1989, 1990,1991)

There is an entry in:

Who is who in The World.  
Who is who in America.

#### **VIII. PUBLICATIONS.**

My area of research is Nuclear and Particle Physics, Astrophysics (Cosmology) and Mathematical Physics. During my scientific career I have published over 200 articles in refereed journals and I have given over 150 invited talks to International Conferences and Schools. I have also attended and presented reports in many conferences and workshops and given lectures in many Universities and Laboratories both in Greece and abroad.

Note: My publications include three articles written at the invitation of the Editor with an honorarium

1. The neutrino mass and lepton, flavor and baryon number non-conservation in gauge theories, J.D. Vergados, Physics Reports 133, 1 (1986).
2. Double Beta Decay from a Modern Perspective, J.D Vergados Phys. Rep. 361 (2002) 1.

3. Theory of Neutrinoless Double Decay, Rep. Prog. Phys. 75 (2012) 106301
4. Neutrinoless double beta decay and neutrino mass, J. D. Vergados, F. Simkovic and H. Ejiri, International Journal of Modern Physics E Vol. 25, No. 11 (2016) 1630007 (59 pages)

As of the year 2015 there were more than 4500 citations in my research publications with h-index=27 and i10-index=78.

## **IX. RESEARCH GRANTS**

Before my retirement I have been a member of 3 Mobility of Researchers Networks of the European Union. I have also been the coordinator of a number of research grants for non targeted basic research. Among the grants I have participated are:

- Funded from the European union.
  1. Sc1/0131-C(AM).
  2. SVP-87-0053.
  3. Sc1/0221-C(TT).( I served as coordinator of the entire 4-country network)
  4. ERB CHRXT93-0323.
  5. INTAS-93-1648.
  6. CHRX-CT93-0132.
  7. ERBFMAX-CT96-0090.
  8. RTN No HPRTN-CT-2000-00148.
  9. MRTN-CT-2004-503369.
  10. HPRTN-CT-2006-035863.
  11. MRTN-CT-2006 (UniverseNet)
  12. ILIAS (Dark Matter)
  13. ILIAS (Neutrinos)
- Funded from the Greek Secretariat for Research
  1. 77ERE 461/28-8-83.
  2. PENED Y91 ED 300.
  3. PENED Y95 a/a 1695(21.12.95).
- Funded by the Ministry of Education (EPEAK)
  1. Code: OPS-ERGORAMA 75668 (Post Graduate Program "Incorporating New Technologies and Research in Physics Education").

## X. CURRENT RESEARCH INTERESTS

My research interests lie in the broader area of Particle Physics, Nuclear Physics, Cosmology and Mathematical Physics, especially in the interfaces between them. More specifically:

- Phenomenology of gauge theories (GUTS, SUSY, superstring inspired models etc).
- Weak interactions with emphasis on symmetries and conservation laws.
- Neutrino properties.
- Dark Matter.

I have published various textbooks as follows:

- 1 J.D. Vergados, Mathematical Methods in Physics vol I, Crete University Press, 2004 (in Greek).
- 2 J.D. Vergados, Mathematical Methods in Physics vol II, Ekdoseis Symmetria, 2004 (in Greek).
- 3 J. D. Vergados, Group Theory, two volumes, Ekdoseis Symewn, 1990 (in Greek).
- 4 J. D. Vergados, Classical Electrodynamics, Ekdoseis Symewn, 2000 (in Greek).
- 5 J. D. Vergados and A Kehagias, Classical Electrodynamics, Ekdoseis Symeon 2020 (in Greek).
- 6 J. D. Vergados and E. Triantafyllopoulos, Statistical Mechanics, Ekdoseis Symewn, 1999 (in Greek).
- 7 Elementary Particles J.D. Vergados, S. Lola and E. Triantafyllopoulos, Ekdoseis Symmetria, 2015(in Greek).
- 8 J. D. Vergados, The standard Model and Beyond, World Scientific, 2017.
- 9 J. D. Vergados, Subatomic Physics (elementary Nuclear and Particle Physics) and the standard Model and Beyond, Lecture notes series, prepared for delivery at KAIST University, Republic of Korea (in English).
- 10 J. D. Vergados, Group and Representation Theory, World Scientific, 2016.
- 11 J. D. Vergados, The Standard Model and Beyond, World Scientific, 2018.
- 12 J. D. Vergados and Ch. Moustakidis, Subatomic Physics, World Scientific, 2021.
- 13 J. D. Vergados and Vasiliki Remediakis, Group Theory (finite Groups and representations), World Scientific, 2023.

- 14 Group Theory, Volume A (Discrete Groups and Applications), Ekdoseis Symmetria, 2021 (in Greek)
- 15 Group Theory, Volume B (Continuous Groups and Applications), Ekdoseis Symmetria, 2021 (in Greek)
- 16 J. D. Vergados, I. Remediakis and E. Triantafyllopoulos, Statistical Mechanics and Thermodynamics, Ekdoseis Symewn, 2017
- 17 J. D. Vergados, P. Benedatos, I. Remediakis and E. Triantafyllopoulos, Thermodynamics and Statistical Mechanics, Ekdoseis Symewn ( in preparation),

## XI. OTHER ACTIVITIES

i ) During my career I have served in almost all academic administrative positions, namely:

- Director of the Theoretical Physics Division
- Chairman of the Department of Physics
- Rector of the University of Ioannina

ii ) Chairman, Board of Trustees, Educational and Research Institute of Western Macedonia, 2012-2016.

iii) I have been the first Greek living and working in Greece to win the distinguished **Humboldt Research Award (1998)**.

iv) In my capacity as Rector of the University I have visited Australia, Canada, the United States, Japan ,Argentina, Ukraine, Albania, Bulgaria, Cyprus, Germany, Ireland, France etc to initiate and sign collaboration agreements with Universities in these countries.

As a result of my visits to Australia, Canada and the United States funds were raised and programs were designed to offer at the University of Ioannina special intensive courses centered on the Greek Language and Culture for those who teach Greek in overseas Secondary and High Schools.

v) I have served in a number of formal Greek National Committees for drafting questionnaires and procedures for evaluating Universities and Research Centers. I have participated in and chaired committees whose task was to evaluate the Demokritos Research Center in Athens.

I have also served as the Greek delegate to the INCO (International Cooperation) Committee of the European Union, which deals with grants to non European Union countries as well as international organizations. In this capacity I have gained a lot of experience in International Cooperation, in areas of research, technology and development (RTD).

vi) As the culmination of my research and teaching activities over the years I should mention my involvement in the initiation, organization and management of the post graduate program "Incorporating New Technologies and Research in Physics Education"

of the University of Ioannina. In this program I have also been involved as a teacher, teaching the graduate course "Physics for the Secondary Education Teachers".

**XII.XII. Publications in Refereed Journals:**

I have more than 300 publications in reputable scientific journals.