



ΑΡΙΣΤΟΤΕΛΕΙΟ  
ΠΑΝΕΠΙΣΤΗΜΙΟ  
ΘΕΣΣΑΛΟΝΙΚΗΣ

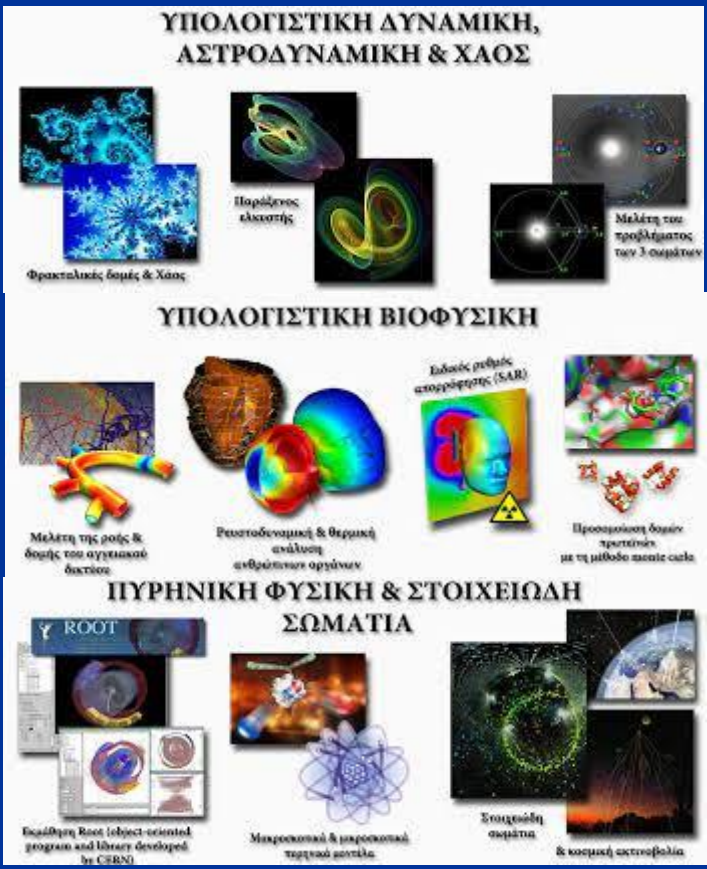
# ΣΕΜΙΝΑΡΙΟ ΠΜΣ ΥΠΟΛΟΓΙΣΤΙΚΗΣ ΦΥΣΙΚΗΣ ΤΜΗΜΑ ΦΥΣΙΚΗΣ

Τετάρτη 5 Ιουνίου 2024

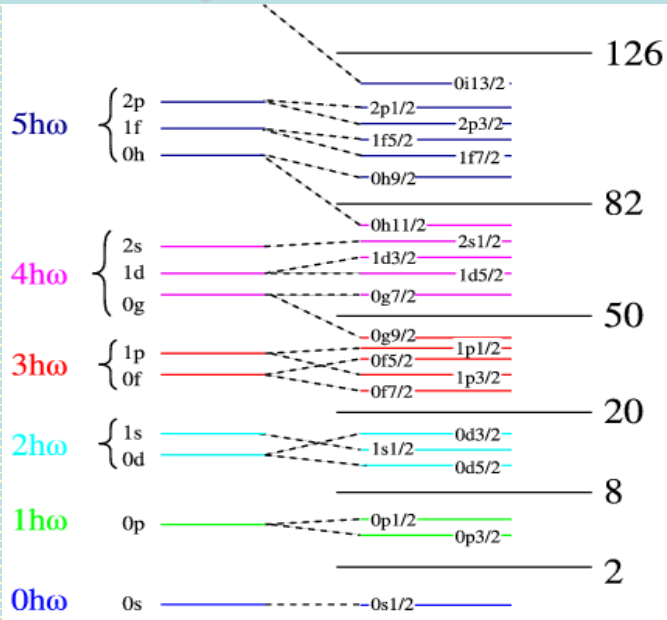
ώρα 11:00

Αίθουσα Συνεδριάσεων του Τμήματος (4ος όροφος, αίθουσα 26)

## Σεμινάρια ΠΜΣ Υπολογιστικής Φυσικής 2023-2024



## Symmetries of local, finite range, potentials



Prof. Steven Karataglidis

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Honorary Fellow of the School of Physics, University of Melbourne,  
Australia

*Symmetries of many-body systems are well understood but in some respects are assumed. The existence of magic numbers in atoms and nuclei suggest the existence of shells, and those are ascribed to angular momentum. In this talk, we consider the emergence of such symmetries with respect to the underlying local, finite range, potentials responsible for the dynamics of the system. In other words, why shells? Implications regarding realistic systems will be discussed.*

Το προφίλ του ομιλητή



Prof Steven Karataglidis is Professor of Theoretical Nuclear Physics at the University of Johannesburg, South Africa, and Honorary Fellow of the School of Physics, University of Melbourne, Australia. His main research topics are: Nuclear Structure, as it relates to light nuclei and exotic nuclei; Nuclear Reactions, particularly electron-nucleus and nucleon-nucleus scattering, and how nuclear structure plays a critical role; and Mathematical Physics, where questions of a more fundamental nature to nuclear physics are addressed. Prof Karataglidis has written above 100 articles and presented at many conferences. He has also written a book, with his collaborators, on nucleon-nucleus scattering at low and intermediate energies, and the central role nuclear structure plays in the descriptions of scattering. He has also given a number of talks at various universities and laboratories around the world, including at the Aristotle University of Thessaloniki.