Α ΡΙΣΤΟΤΕΛΕΙΟ
Π ΑΝΕΠΙΣΤΗΜΙΟ
Θ ΕΣΣΑΛΟΝΙΚΗΣ

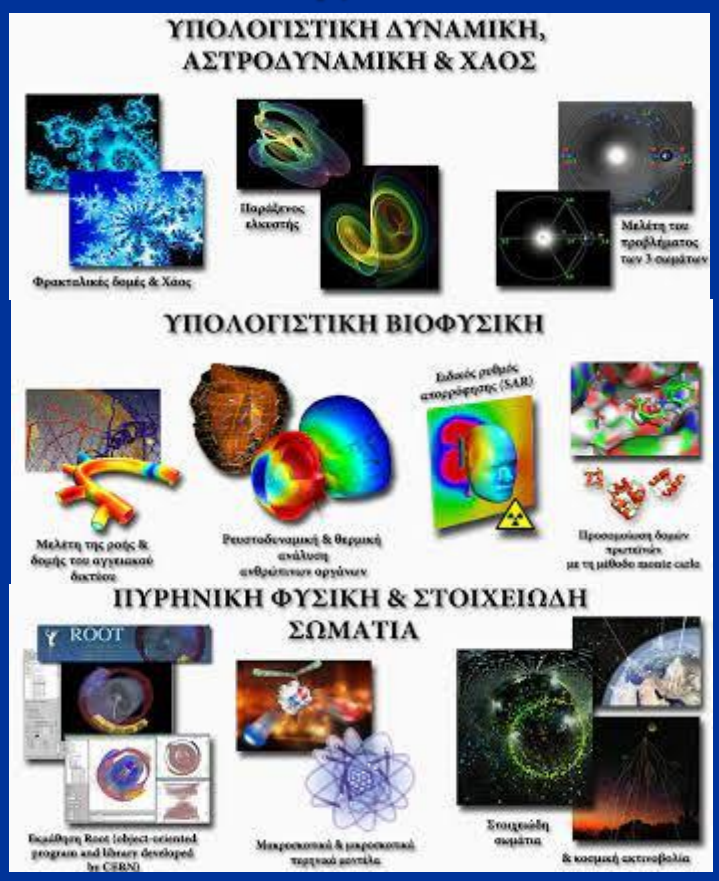
# ΣΕΜΙΝΑΡΙΟ
# ΠΜΣ ΥΠΟΛΟΓΙΣΤΙΚΗΣ ΦΥΣΙΚΗΣ
# ΤΜΗΜΑ ΦΥΣΙΚΗΣ

## Τρίτη 5 Απριλίου 2022

## ώρα 12:00

**Zoom link: https://authgr.zoom.us/j/93408351002**

**Σεμινάρια ΠΜΣ Υπολογιστικής Φυσικής 2021-2022**




## Bringing Heaven to Earth:
## From Neutron Stars to Strange Nuclei



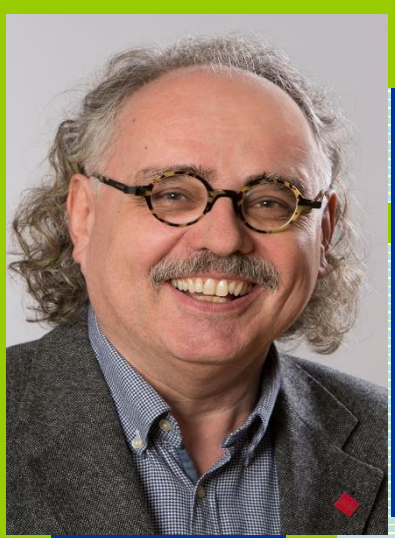
***Prof. Dr. Josef Pochodzalla***

***Institut für Kernphysik***

***Johannes Gutenberg University (JGU) Mainz***



***The quantitative understanding of dense stellar systems like neutron stars is one of the most burning challenges in physics. Since more than 5 decades, the high-density nuclear equation-of-state is indeed the holy grail of nuclear physics. Recently, the remarkable progress made by astrophysical observations provided additional severe constraints on the mass-radius relation of neutron stars and hence on the EoS. Hyperons are expected to appear at 2-3 times nuclear density in the core of these stars. However, the appearance of hyperons depends crucially on the strong interactions. Multi-baryon interactions are expected to play a decisive role. Indeed, precise studies of hypernuclei are a unique tool to study such interactions in the laboratory. In my talk I will motivate our efforts to study hypernuclei. This motivation will be followed by an overview on ongoing world-wide activities. I will focus on a few selected examples of planned experiments.***

***Το προφίλ του ομιλητή***

Josef Pochodzalla is a Professor of Experimental Physics on the Institut für Kernphysik Johannes Gutenberg University (JGU) Mainz (Germany ) since 2000. His received his Ph.D. in Experimental Physics at Max Planck Institute of Nuclear Physics, Heidelberg (1983). He worked as a PostDoc at NSCL Michigan State University, East Lansing (USA) (1984-1986), at GSI Darmstadt as Heisenberg fellow (1992-1996) and Max-Planck-Institute of Nuclear Physics, Heidelberg (1996-2000). His main research topics include nucleon structure with electromagnetic probes (MAMI, COMPASS@CERN) and strange baryons in nuclei, hypernuclei (A1@MAMI, HYPHI@GSI, PANDA@FAIR, E07@J-PARC) while his previous include also relativistic heavy ion collisions, fragment production, liquid-gas-phase transition. The total number of publications in refereed journals is 315 while the total number of citation is more than 10500.