



ΑΡΙΣΤΟΤΕΛΕΙΟ  
ΠΑΝΕΠΙΣΤΗΜΙΟ  
ΘΕΣΣΑΛΟΝΙΚΗΣ

# ΣΕΜΙΝΑΡΙΟ ΠΜΣ ΥΠΟΛΟΓΙΣΤΙΚΗΣ ΦΥΣΙΚΗΣ ΤΜΗΜΑ ΦΥΣΙΚΗΣ

Τρίτη 2 Νοεμβρίου 2021

ώρα 12:00

Zoom link: <https://authgr.zoom.us/j/93408351002>

## Σεμινάρια ΠΜΣ Υπολογιστικής Φυσικής 2021-2022

**ΥΠΟΛΟΓΙΣΤΙΚΗ ΔΥΝΑΜΙΚΗ,  
ΑΣΤΡΟΔΥΝΑΜΙΚΗ & ΧΑΟΣ**

Φρακταλικές δομές & Χaos  
Παράδειγμα ελαστικής  
Μελέτη του προβλήματος των 3 σφαιρών

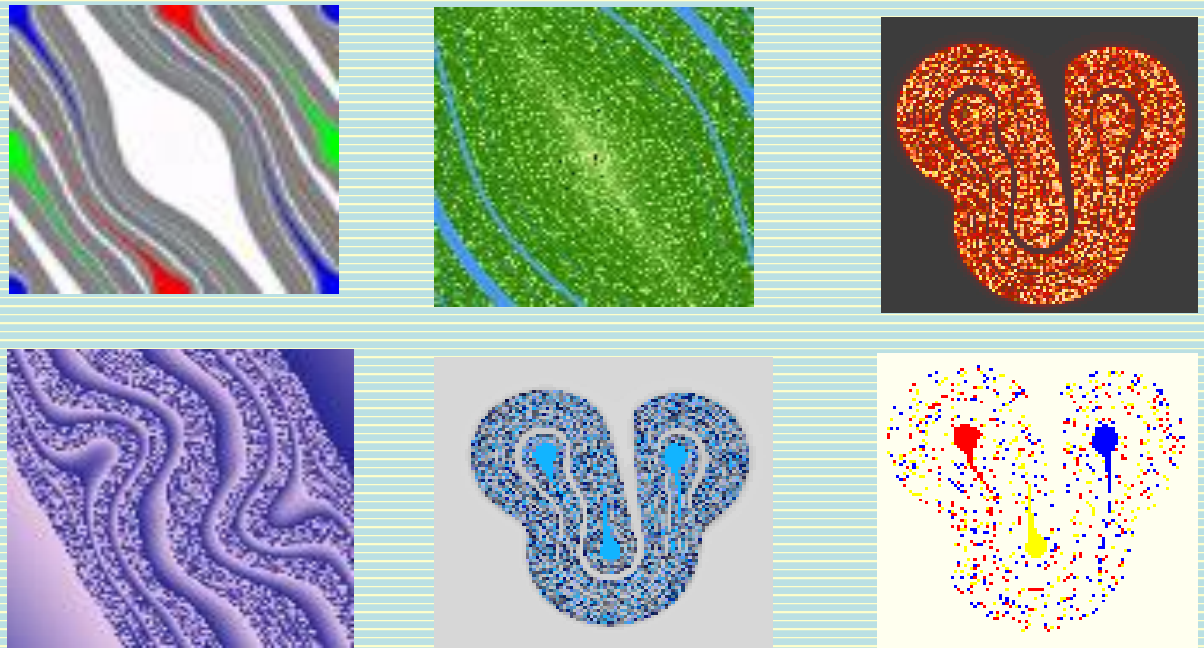
**ΥΠΟΛΟΓΙΣΤΙΚΗ ΒΙΟΦΥΣΙΚΗ**

Μελέτη της ροής & δομής του αγγειακού δικτύου  
Ρευστοδυναμική & θερμική ανάλυση ανθρώπινων οργάνων  
Ειδικός ρεθός απορρόφησης (SAR)  
Προσομοίωση δομής πρωτεΐνης με τη μέθοδο particle scale

**ΠΥΡΗΝΙΚΗ ΦΥΣΙΚΗ & ΣΤΟΙΧΕΙΩΔΗ ΣΩΜΑΤΙΑ**

Εκπαίδευση ROOT (object-oriented program and library developed by CERN)  
Μικροσκοπικά & μακροσκοπικά τμήματα αστέρα  
Στοιχειώδη σωματίδια & κοσμική ακτινοβολία

## A brief history of instability



\*Simulations by Yves Goudene

**Ioannis Iakovoglou**  
University of Bourgogne (France)

***The beginning of the previous century was marked by a great optimism with respect to developing Mathematics up to small errors. In 1959, Stephen Smale conjectured that almost every system in Mathematics, and therefore in Nature, resists to perturbations. If this conjecture were true, that would indeed be a great achievement for experimental physicists: small experimental errors will not change our perception of the physical world. In this talk, I will explain with more detail Smale's conjecture and introduce some of the first examples of instability that changed completely our understanding of dynamical systems.***

Το προφίλ του ομιλητή



Ioannis Iakovoglou is a second year PhD student at the University of Bourgogne (France) under the direction of Christian Bonatti. In 2019, he obtained his Master's on geometry and group actions in the ENS of Lyon. Since 2019, his research has been focused on uniformly hyperbolic dynamical systems: the study of structurally stable systems, relations between attractors and more recently the classification of Anosov flows. Invested in the domain of vulgarization of mathematics, he has been invited to participate in general public science events such as Fête des sciences (2019,2021) or Images sonores (2021). His PhD is devoted in the classification of Anosov flows on 3-manifolds by the use of Markov partitions.