

## 19<sup>th</sup> e-Summer School in Risk Finance and Stochastics 28/9 - 30/9/2022

<https://aegean-gr.zoom.us/j/97140505314?pwd=SHp3dk9qSE9NZXNrUk5mUjBBTFA5UT09>

### Program

#### WEDNESDAY, 28<sup>th</sup> September

15.00 Opening

15.30 - 17.30 C. Siettos (Universita di Napoli) Numerical Analysis and Modelling of Complex Dynamical systems with Machine Learning. Is there anything left to do?

17.30 - 19.30 P. Papaioannou (Eurobank) Manifold learning and applications in finance

19.30 - 20.30 S. Xanthopoulos (Univ. Aegean) A first introduction to topological data analysis

20.30 - 21.00 K. Kaloudis (Univ. Aegean) On the approximation of basins of attraction using deep neural networks

21.00 - 21.30 A. Bougias (AUEB) The pricing of serial sovereign default risk: Theory and evidence from the equity and CDS markets

#### THURSDAY, 29<sup>th</sup> September

14.30-15.00 M. Economou (Actuarial Association of Europe) From labour supply to labour productivity

15.00 - 16.00 T. Bratis (AUEB) Financial markets and associated risks under crises periods

16.00 - 19.00 R. Loeffen (Univ. of Manchester) Optimal control of risk processes in insurance

19.00 - 21.00 L. Russo (Univ. di Napoli) Frequency locking and routes to chaos: A tutorial

21.00 - 21.30 R. Hersmis (Hersmis Consulting) TBA

#### FRIDAY, 30<sup>th</sup> September

15.00 - 17.00 A. Sulem (INRIA Paris) Option pricing in a non-linear incomplete financial market model with default ; the European and American cases

17.00 - 19.00 Gerhard-Wilhelm Weber (Poznan University of Technology) An application of stochastic differential games with Lagrange multipliers: Bank assurance

19.30 - 20.00 E. Drakonakis (NKUA) Stabilization of Stochastic Exchange Rate Dynamics under Central Bank Intervention using Neuronets

20.00 - 20.30 E. Louloudis (AUEB) Premium Rating and Capital Requirements for Seismic Risk

20.30 - 21.00 K. Georgiou (AUEB) Modelling default probabilities in credit risk using PIDEs: Analysis and numerics