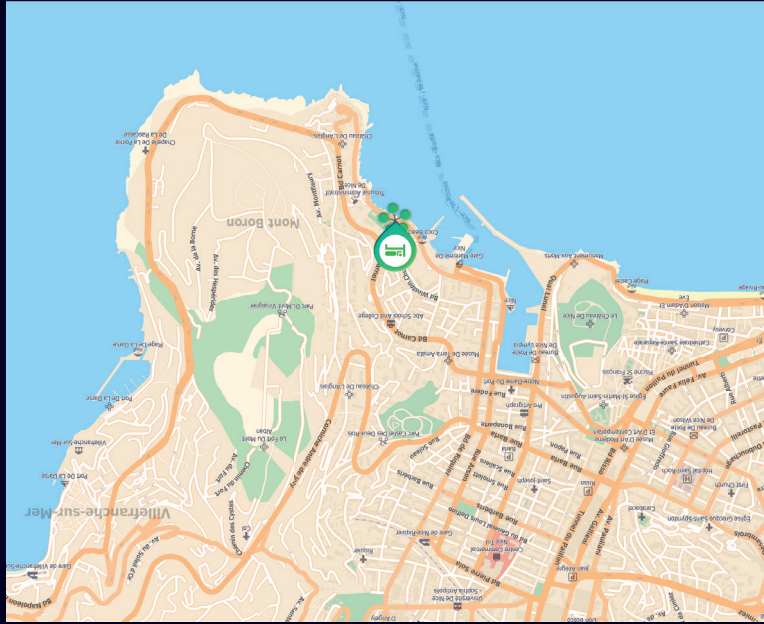


Le Saint Paul Hôtel - 29 boulevard Franck Piatte - 06300 Nice
Salle Brea, patio, rez-de-chaussée
Salle Matisse, 2^{ème} Étage
Salle Cézanne, Salle Bonnard, 3^{ème} Étage

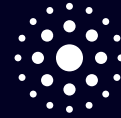


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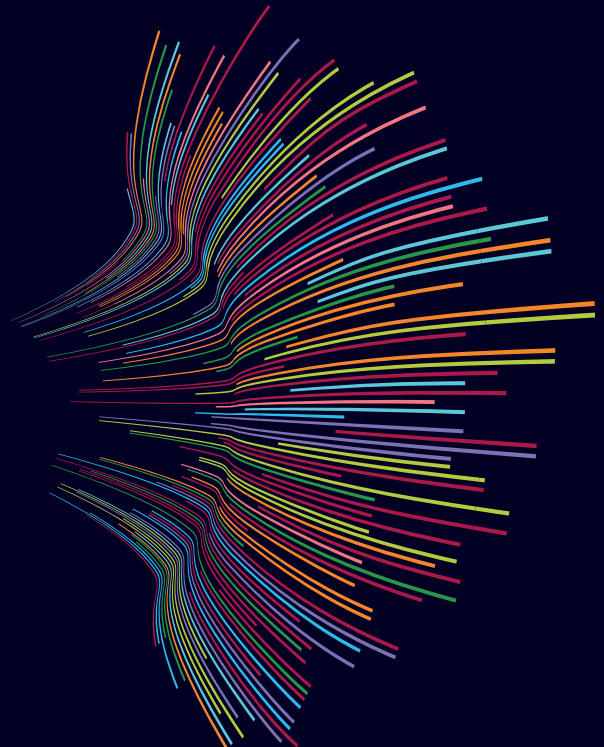
ACADEMY OF EXCELLENCE

COMPLEX SYSTEMS

Université Côte d'Azur
COMPLEX DAYS

THURSDAY, 11 JANUARY 2018

Le Saint Paul Hôtel, in Nice



SCHEDULE OF Université Côte d'Azur COMPLEX DAYS

REGISTRATION AND WELCOME COFFEE - PATIO OF BREA ROOM BRIEF INTRODUCTION TO THE DAY - BREA ROOM

Frédérique Bertonecello (CEPAM): Modeling complex systems in Archaeology: general issues and first insights from the ModelAnSet project
BREA ROOM

BONNARD ROOM

8h30-8h45

8h45-9h00

9h00-9h20

9h25-9h45

Raphaël Chérite (JAD):
On Gibbs-Shannon Entropy

9h45-10h05

Matthieu Bellec (INPHYNI):
Experimental evidences of light superfluidity in a nonlinear crystal

10h05-10h25

Christophe Den Auwer (ICN):
New paradigms in nuclear human decorporation using macromolecular systems

10h25-10h45

Hadrien Gascuel (JAD):
Synchronization in networks of interacting agents

MATISSE ROOM

Sylvain Antonietti (ICN):
Complex molecules synthesis made easy

Alexandru Dimca (JAD):
Polynomial interpolation in higher dimensions

Gian-Luca Lippi (INPHYNI):
Self-organization and noise in small scale lasers and beyond

Emiliano Perez Ipiña (JAD):
Modeling bacterial infections

CEZANNE ROOM

Yves D'Angelo (JAD):
Dynamics of Multi-Scale Expanding Networks

Gianluigi Giustiziero (SKEMA):
When Losing a Valuable Resource Enhances Performance: Resource Turnover on Rugged Landscapes

Stéphane Lanteri (INRIA):
Advanced numerical modeling and simulation of nanoscale light/matter interactions

Yannick Baraud (JAD):
Robust estimation in statistic

COFFEE BREAK - PATIO OF BREA ROOM

11h15-11h35

Bruno Cessac (INRIA):
Multi scale modeling of the retina

11h35-11h55

Luis Gomez Nava (JAD):
Emergent collective behaviors induced by imitation

11h55-12h15

Robert Grossmann (JAD):
Emergent collective dynamics of active particles with alignment-interactions

12h15-12h35

Uriel Frisch (LAGRANGE):
Bridging the mathematician's and the physicist's current vision of turbulence

Christophe Henry (LAGRANGE):
Suspensions of non-spherical particles in turbulent flows

Yannick Ponty (LAGRANGE):
Turbulence fluid-structure Dynamo

Martin Krupa (JAD):
Models of sequential activation of concepts

Cornelia Meinert (ICN):
Chiral Biomolecules in Interstellar Space: Detection and Symmetry Characterization

André Galligo (JAD):
In-plane compressive response of a polycarbonate honeycomb

Pavel Kuzhir (INPHYNI):
Magnetic filtration of phase separating ferrofluids: first steps towards application to detection of biomolecules

Héloïse Méheut (LAGRANGE):
Astrophysical disks winds and turbulence

Jean-Baptiste Caillaud (JAD):
Optimal control of slow-fast mechanical systems

NETWORKING LUNCH

Agnese Seminara (INPHYNI): The fundamental drivers of fungal spore liberation in the atmosphere - **BREA ROOM**

14h00-14h20

Thierry Goudon (INRIA):
Kinetic models for interacting «particles»

14h25-14h45

Olivier Legrand (INPHYNI):
Chaotic Reverberation Chambers for Electromagnetic Compatibility

15h05-15h25

Romain Veltz (INRIA):
On a toy network of neurons interacting through nonlinear dendritic compartments

15h25-15h45

Jérémie Bec (LAGRANGE):
Dusty turbulence

15h45-16h05

Jérôme Golebiowski (ICN):
Cracking the code of chemosensory perception using computational tools

Frédéric Lesage (MSI):
Measurement of temperature and thermal gradients using fiber optic Long Period Gratings (LPG)

Paola Goatin (INRIA):
Macroscopic models for traffic management

Guillaume Labeyrie (INPHYNI):
Self-organization in cold atoms

Jean-Baptiste Pomet (INRIA):
Stability analysis of high frequency nonlinear amplifiers via harmonic identification

Florentin Millour (LAGRANGE):
Data transmission with an optical link between a nanosatellite and the ground

Jacques Blum (JAD):
Nudging-based observers for geophysical data assimilation and joint state-parameters estimation

Lionel Gil (INPHYNI):
A biophysical model mimicking the spontaneous occurrence of waves in developing retina

Elie Hachem (MINES Paris Tech):
A new numerical framework for phase change, boiling and liquid-vapor interface

Matteo Rauzi (IBV):
Probing an embryo-scale purse-string mechanism driving ventral furrow formation

Marjorie Haond (INRA):
Frozen in space: an experimental demonstration of range pinning

COFFEE BREAK - PATIO OF BREA ROOM

16h30-16h50

Bruno Marcos (JAD):
Collisional relaxation of long range interacting systems of particles

16h50-17h10

Vincent Calcagno (INRA):
Complexity and the stability of ecological systems

17h10-17h30

Dario Vincenzi (JAD):
Emergence of chaos in a viscous solution of microscopic rods

17h30-17h50

Mathias Albert (INPHYNI):
Tracking symmetries in systems of one dimensional quantum particles

17h50-18h10

Mathieu Desroches (INRIA):
Slow-fast transitions to seizure states in the Wendling-Chauvel neural mass model

18h10-18h30

Enrico Formenti (I3S):
On the enumeration of 2-polyominoes

Laurent Counillon (LP2M):
Lithium Isotopic Fractionation by human Na⁺/H⁺ exchangers

Giovanna Tissoni (INPHYNI):
Extreme events in lasers

Giorgio Krstulovic (LAGRANGE):
Vortex reconnections in classical and quantum fluids

Frédéric Hébert (INPHYNI):
Discrete quantum systems

Jonathan Stephano (JAD):
Asymmetric bronchi tree model: does pruning bear fruit?

Elisabeth Lemaire (INPHYNI):
Concentrated suspension dynamics: a contact story

Madalena Chaves (INRIA):
A mathematical control viewpoint on the interactions between mammalian cell cycle and circadian clock

Marco Corneli (JAD):
Stochastic textual block modeling in dynamic networks

Xavier Noblin (INPHYNI):
Cavitation avalanche in natural and artificial devices

Patrick Michel (LAGRANGE):

Granular material dynamics and space missions to celestial bodies: a transdisciplinary approach - **BREA ROOM**

CLOSING SPEECH & APERITIF