

**Mathematics and its applications to complex phenomena
arising in biology, chemistry and medicine**

CIRM, Luminy

Tuesday June 3rd

Chairperson: Masayasu Mimura

09.45–10.15: Daishin Ueyama
Simulation study of crawling locomotion in gastropod

10.20–10.50: Thomas Giletti
Spreading speeds in some diffusive prey-predator systems

Chairperson: Tadahisa Funaki

11.20–11.50: Yong Jung Kim
Population dynamics and biological dispersal

11.55–12.25: Michel Langlais
More about SI and SIR epidemic systems with spatial structure

Chairperson: Pascal Chossat

14.30–15.00: Yannick Rondelez
Programming chemical morphogenesis

15.05–15.35: Mitsuru Yamazaki
Self-similar boundary layers with viscosity and capillarity

Chairperson: Guillemette Chapuisat

16.10–16.40: Pascal Chossat
Dynamics induced by long-range connections in the visual cortex primary area

16.45–17.15: Toshiyuki Ogawa
Periodic traveling wave solutions to excitable RD systems

17.20–18.20: ReaDiLab Meeting

Wednesday June 4th

Chairperson: Hiroshi Matano

09.45–10.15: Jacques Demongeot
The organization of control circuits inside the interaction graphs of the biological regulation networks

10.20–10.50: Pierre Recho
Contraction driven cell motility

Chairperson: Jacques Demongeot

11.20–11.50: Elisabeth Logak
An integro-differential model for the spread of epidemics in networks

11.55–12.25: Hirofumi Izuhara
Properties arising in a tumor growth model with contact inhibition of cells

Chairperson: Marie Henry

14.30–15.00: Matthieu Alfaro
Explicit solutions for replicator-mutator equations: extinction vs. acceleration

15.05–15.35: Harunori Monobe
Fast reaction limit of a two-component system with unbalanced reaction terms

Chairperson: Michel Langlais

16.10–16.40: Tadahisa Funaki
Sharp interface limit for mass conserving Allen-Cahn equation with stochastic term

16.45–17.15: Gilles Wainrib
The Intelligence of Water

Thursday June 5th

Chairperson: Thanh Nam Nguyen

09.45–10.15: Yuzo Hosono
Revisit to traveling waves for the diffusive Lotka-Volterra predator-prey model

10.20–10.50: Lionel Roques
The spatio-temporal dynamics of neutral genetic diversity

Chairperson: Andre Estévez-Torres

11.20–11.50: Joe Yuichiro Wakano
Evolutionary branching in a finite population: deterministic branching versus stochastic branching

11.55–12.25: Thomas Risler
Hydrodynamic Instabilities in Tissues and Actin Gels

Chairperson: Danielle Hilhorst

14.30–15.00: Arnaud Ducrot
Singularly perturbed elliptic system modelling the competitive interactions for a single resource

15.05–15.35: Hiroshi Matano
Front propagation in a bidomain model