# WORKSHOP ON LOCAL LIMITS FOR GALTON-WATSON TREES

# 2018, 18-22 of June

#### SCHEDULE

## Monday 18th of June

9h-10h30 Jean-François Delmas
(1) Introduction to GW processes. Probability P(E) of the extinction event E

11h-11h50 Nakatsu Tomonori Properties of density functions on maxima of one-dimensional diffusion processes

14h-15h30 J-F. Delmas
(2) Speed of extinction. Limit of GW processes. Explicit computation in the geometric case.

16h-16h50 **Doan Thai Son (IMH-VAST)** A classification of random circle maps

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#### **Tuesday 19th of June**

9h-10h30 J-F. Delmas(3) Trees. GW trees and GW tree conditionally on E.

*11h-11h50* **Viet-Hung Pham (IMH-VAST)** *Persistence probability of random polynomials* 

14h-15h30 J-F. Delmas

(4) Multi-type GW trees. GW tree conditionally on the non-extinction event  $E^{C}$ 

*16h- 16h50* Luong Duc Trong (Hanoi National University of Education) Semi-implicit Milstein approximation scheme for non-colliding particle systems

## Wednesday 20th of June

8h30-10h Romain Abraham(5) Topology on the space of trees. Local convergence of trees. Kesten's tree

10h30-12h R. Abraham(6) Other results for the local convergence for conditioned GW.

**FREE AFTERNOON** 

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## Thursday 21th of June

9h-10h30 J-F. Delmas(7) Results on random walks: strong ratio limit theorem and Dwass formula.

#### 11h-11h50 Ngoc Khue Tran (Pham Van Dong University)

Local asymptotic properties for the growth rate of a jump-type CIR process

#### 14h-14h50 R. Abraham

(8) Other results for the local convergence for conditioned GW.

15h-15h50 **Duong Xuan Giap (Vinh University**) TBA

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#### Friday 22th of June

9h-10h30 **R. Abraham**(9) Introduction to the condensation phenomenon for local limit of GW trees.

11h-11h50 Ngo Hoang Long (Hanoi National University of Education) Approximation for non-smooth functionals of stochastic differential equations with irregular drift.

14h-15h30

#### R. Abraham

(10) Local limit of GW trees conditioned to be very large at late time. Explicit representation in the geometric case. Martin boundary for GW processes.