

**Course "Models of Random Structures"
Preliminary Program**

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8-11 September 2014

1. MONDAY SEPTEMBER 8TH 2014

Introduction and Models of Random Sets

- *Morning (10h30-12h30)*
 - General Introduction. Introduction to Random Sets and Functions
- *Afternoon (14h30-16h30)*
 - Introduction to Mathematical Morphology and to morphological measurements (Stereology, Size distributions, Covariances, distances, connectivity)

2. TUESDAY SEPTEMBER 9TH 2014

Boolean Model and Random Tessellations

- *Morning (10h30-12h30)*
 - The Boolean Model; Infinitely Divisible, Semi-Markov Random Sets. Examples of application of the Boolean Model
- *Afternoon (14h30-16h30)*
 - 14h30-15h: Examples of application of the Boolean Model
 - 15h-16h30: Models of Random Tessellations: properties and examples (Voronoi, Johnson-Mehl, Poisson and Cauwe Polyhedra)

3. WEDNESDAY SEPTEMBER 10TH 2014

• *Morning (10h30-12h30)* **Models of Random Functions**

- 10h-11h30: The Mosaic Random Function Model
- 11h30-12h30: Boolean Random Functions

• *Afternoon (14h30-16h30)* **Sequential Models**

- 14h30-15h30: Sequential Models: Dead Leaves Random Tessellation
- 15h30-16h30: Color Dead Leaves

4. THURSDAY SEPTEMBER 11TH 2014

Sequential Models• *Morning (10h30-12h30)*

- 10h30-11h30: Dead Leaves Random Functions
- 11h30-12h30: Sequential Alternate Random Functions

• *Afternoon (14h30-16h30)*

- 14h30-16h30 Dilution Random Functions; introduction to Reaction-Diffusion models