**Planning Training Maths & Stats 2022**

Lectures of group 1 will be given in **French** whereas Lectures of group 2 will be given in **English**.

The content of the Lectures, the exercises and their corrections can be found on the moodle.

For the group 1, the goal is to see some key concepts of linear algebra and probabilities.

For the group 2, the contents of the sessions will be more advanced (linear algebra, probabilities, dynamical systems and statistics).

For both groups the content of Lecture 1 (prerequisites) is supposed to be known. Some time at the beginning of the training on Monday August 30 can be dedicated to eventual questions about these prerequisites, especially for group 1. If needed, questions may be directly asked by email to antoine.sicard@ens.psl.eu or othman.lahrach@ens.psl.eu.

On Friday, two relatively advanced classes on specific topics are proposed, but in parallel some time will be dedicated to help with exercises and possible questions about the other contents of the week.

|  | 14h-16h | 16h15-18h15 |
|---|---|---|
| **Monday** | Rappels et équations différentielles (*group 1*) | Lecture 2: Elementary linear algebra (*group 2*) |
| **Tuesday** | Cours 2 : Algèbre linéaire élémentaire (*group 1*) | Lecture 3: Linear dynamical system (*group 2*) |
| **Wednesday** | Cours 2 : Algèbre linéaire élémentaire - suite (*group 1*) | Lecture 4: Probabilities (*group 2*) |
| **Thursday** | Cours 4 : Lois classiques de probabilités (*group 1*) | Lecture 5: Statistics (*group 2*) |
| **Friday** | Questions et aide aux exercices (group 1 - group 2 at choice) | Advanced concepts: <br> - Non-linear dynamical systems <br> - Introduction to Markov chains <br> (group 2 at choice) |