

Du  
**16**  
DÉC.  
2020

15h30

-  
16h30

## RÉGA

**Matthieu Piquerez -- 15h30 - Tropical Hodge theory and the tropical Hodge conjecture**  
INSCRIPTION

Classical Hodge theory explains us that the cohomology of a smooth projective complex variety verifies a lot of nice properties. After a few reminders about classical Hodge theory and about tropical varieties, I will present a tropical analogous of these properties for the cohomology of a tropical variety . This tropical Hodge theory is strongly linked to combinatorial Hodge theory, as well as to the limit of families of complex varieties. I will only detail the latter. This will allow me to talk about the tropical Hodge conjecture and to discuss its links with the classical Hodge conjecture. Finally, I will present a work in preparation with O. Amini where we use the tropical Hodge theory to prove the tropical Hodge conjecture for rationally triangulable tropical varieties.



## **INSTITUT HENRI POINCARÉ - UAR839**

Sorbonne Université / CNRS  
11 rue Pierre et Marie Curie  
75231 Paris Cedex 05

### **HORAIRES**

L'institut :

- lundi au vendredi de 8h30 à 18h,
- fermé les jours fériés.

Le musée - Maison Poincaré :

- lundi, mardi, jeudi et vendredi de 9h30 à 17h30,
- samedi de 10h à 18h,
- fermé le mercredi et le dimanche.