

HORAIRES SEMAINE 1

École à Luminy

8h	Lundi 15/4	Mardi 16/4	Mercredi 17/4	Jeudi 18/4	Vendredi 19/4	Week-end 20/4
9h						
10h	Peyre	Harari	Schindler	Demarche	Demarche	
11h	Pause café	Pause café	Pause café	Pause café	Pause café	
12h	Harari	Peyre	Demarche	Schindler	Schindler	
13h	Déjeuner	Déjeuner	Déjeuner	Déjeuner	Déjeuner	
14h						
15h	Pause café	Pause café		Pause café		
16h	Peyre	Harari		Schindler		
17h						
18h	Harari	Peyre		Demarche		
19h						
20h	Diner	Diner	Diner	Diner		

Cyril DEMARCHE: *Cohomological obstructions to local-global principles*

Hasse proved that for quadrics the existence of rational points reduces to the existence of solutions over local fields. In many cases, cohomological constructions provide obstructions to such a local to global principle. The objective of these lectures is to give an introduction to these cohomological tools.

Date: Lundi 15 avril–Dimanche 21 avril.

David HARARI: *Galois cohomology, arithmetic duality and obstructions to local-to-global principles for rational points*

A general survey about Galois and étale cohomology, arithmetic duality theorems, and Poitou-Tate exact sequences, with an emphasis on applications to local-to-global principles.

Emmanuel PEYRE: *Points of bounded height*

These talks will start with an introduction to the notion of heights before giving a survey on the program of Manin about the asymptotic behaviour of rational points of bounded height on varieties.

Damaris SCHINDLER: *Interactions of analytic number theory and geometry*

A general introduction to the state of the art in counting of rational and integral points on varieties, using various analytic methods with the Brauer–Manin obstruction.