



Du  
**24**  
MARS.  
2025  
au  
**28**  
MARS.  
2025

09h00  
-  
18h00

## **2025-T1 REPRESENTATION THEORY AND NONCOMMUTATIVE GEOMETRY**

### **Analysis on homogeneous spaces and operator algebras**

Institut Henri Poincaré  
Amphithéâtre Hermite  
11 rue Pierre et Marie Curie  
75005 Paris

INSCRIPTION

### **Representation Theory and Noncommutative Geometry**

### **Workshop: Analysis on homogeneous spaces and operator algebras**

**March 24 to 28, 2025 - IHP, Paris**

### **Summary**

URL de la page : <https://www.ihp.fr/fr/events/analysis-homogeneous-spaces-and-operator-algebras>

Harmonic analysis on homogeneous spaces is a fundamental area of research that simultaneously generalizes classical harmonic analysis on groups and on Riemannian symmetric spaces. It naturally relates to many areas of mathematics, playing a central role in representation theory and the theory of automorphic forms.

This workshop will be an occasion to introduce recent developments in some of these areas. It will also aim to explore new connections between them and extend the fruitful interactions between  $C^*$ -algebras, harmonic analysis and representation theory beyond the classical setting of groups to the general setting of homogeneous spaces.

Topics will include:

- $C^*$ -algebraic approaches to the tempered dual of non-riemannian symmetric spaces;
- Harmonic analysis and Plancherel theory for spherical spaces
- Connections with the Langlands program and periods of automorphic forms
- Recent approaches to the theta correspondence via  $C^*$ -algebras

### **Preliminary list of speakers:**

- Alexandre Afgoustidis
- David Ben-Zvi
- Wee Teck Gan
- Nigel Higson
- Bernhard Krötz
- Omar Mohsen
- Shintaro Nishikawa
- Yiannis Sakellaridis
- Henrik Schlichtkrull
- (This list will be completed)

### **Organising Committee:**

- Anne-Marie Aubert
- Haluk Sengün

### **Scientific Committee:**

- Raphaël Beuzart-Plessis
- Nadya Gurevich
- Nigel Higson
- Gestur Olafsson

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## **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.