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09  
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17  
FÉV.  
2023

08h30  
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20h30

## **2023-T1A QUANTUM GRAVITY, RANDOM GEOMETRY AND HOLOGRAPHY**

### **Quantum gravity, random geometry and holography**

IHP  
Amphitheater Darboux  
11, Rue Pierre et Marie Curie  
75005 Paris

**INSCRIPTION**

**Thematic six-weeks program at Institut Henri Poincaré, Paris.**

**January 09th - February 17th, 2023.**

The scope of the program is to bring together researchers who are working on quantum gravity from various perspectives and approaches, with an emphasis on the random geometry point of view and on more recent holographic developments. The main goal is to intensify the fruitful interactions between the researchers in these and related communities in order to make significant progress on the outstanding problems in quantum gravity.

### **Program :**

URL de la page : <https://www.ihp.fr/fr/agenda/quantum-gravity-random-geometry-and-holography>

The thematic six-weeks program will include two workshops (weeks 2 and 5), introductory lectures (weeks 1 and 4), two general public lectures, and more (informal gatherings and seminars).

Videos of most of the lectures and workshop seminars are available on [carmin.tv](#).

## **Workshops:**

**Week 2** (January 16-20, 2023): [Quantum Gravity and Random Geometry](#)

**Week 5** (February 6-10, 2023): [Tensor Models and Holography](#)

## **Introductory lectures:**

**Week 1** (January 9-13, 2023):

Jan Ambjorn (NBI, Denmark): "[Lattice gravity](#)"

Florian Girelli (U. Waterloo, Canada): "[Quantum groups in a \(coco\) nutshell](#)"

Simone Speziale (CPT, Marseille, France): "[Twisted geometries and spin network states](#)"

**Week 4** (January 30 to February 3, 2023):

Robert de Mello Koch (Univ. Witwatersrand, South Africa): "[Holography for Higher Spin Gravity](#)"

Razvan Gurau (Heidelberg U., Germany): "[From random tensors to tensor field theory](#)"

Sanjaye Ramgoolam (Queen Mary U., UK): "[Groups, algebras and hidden symmetries of matrix/tensor models](#)"

## **Public lectures:**

January 16, 2023: [Lecture for general public\\*](#) by François David (CEA Saclay, France) [[video](#)].

January 30, 2023: Lecture for high school students\* by Frank Ferrari (Univ. Libre Bruxelles, Belgium)

\*in French

## **Organizing committee :**

John Barrett (University of Nottingham)

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Dario Benedetti (CNRS, Ecole Polytechnique)

Joseph Ben Geloun (Université Sorbonne Paris Nord)

Renate Loll (Radboud University Nijmegen)

**Poster :**

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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.

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