



From  
**12**  
SEP.  
2022  
to  
**08**  
DEC.  
2022

09h00  
-  
18h00

## **2022-T3 GEOMETRY & STATISTICS IN DATA SCIENCES**

### **GESDA Long & Short Courses**

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### **Schedule**

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**[Subscribe here to newsletter and announcements](#)**

### **Join Online**

URL of the page: <https://www.ihp.fr/en/events/gesda-long-short-courses>

- Video stream link: [Omnilive](#)
- Chat link: [here](#) (only for text and audio chat)
  - Meeting ID: 896 4904 3130
  - Password: 761157

## Course Material

### Long Courses (Dedicated Pages)

- Quentin Mérigot (LMO, Orsay)
  - *[Optimal Transport](#)*
- Ery Arias-Castro (UC San Diego) and Eddie Aamari (U Paris Cité & Sorbonne U)
  - *[Embedding for Data Analysis : Multidimensional Scaling and Manifold Learning](#)*
- Eric Klassen (Florida State)
  - *[Geometry of Shape Spaces of Curves and Surfaces](#)*
- Wolfgang Polonik (UC Davis)
  - *[Statistical Topological Data Analysis](#)*

### Mini-Courses

- Joseph Yukich (Lehigh University)
  - *[Asymptotic Analysis of Statistics of Random Geometric Structures](#)*
- Nicolas Charon (John Hopkins)
  - *[A Few Applications of Geometric Measure Theory to Shape Analysis](#)*
- Mikhail Belkin (UC San Diego)
  - *[Mathematical Aspects of Deep Learning](#)*
- Yusu Wang (UC San Diego)
  - *[Some Theoretical Aspects of Graph Neural Networks \(and Higher Order Variants\)](#)*
- Kathryn Hess (EPFL)
  - *[Topological Approaches to Neuroscience](#)*
- Stephen Preston (Brooklyn College)
  - *[Riemannian Geometry on Lie Groups](#)*



## **INSTITUT HENRI POINCARÉ**

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

### **TIMETABLE**

The institute:

- Monday to Friday from 8:30am to 6pm,
- closed on public holidays.

The museum - Maison Poincaré :

- Monday, Tuesday, Thursday and Friday from 9:30am to 5:30pm,
- Saturday from 10am to 6pm,
- closed on Wednesday and Sunday.