

# HOLOGRAPHY@25

**School June 5-13 | Workshop June 14-17, 2023**  
**at Instituto de Física Teórica - UNESP, São Paulo, Brazil**

## SCHOOL LECTURERS AND TOPICS

**Jan de Boer** (Amsterdam University, Netherlands)  
Black holes and AdS/CFT

**Aristomenis Donos** (Durham University, UK)  
Applications to condensed matter theory

**Carlos Hoyos** (Oviedo University, Spain)  
Applications of holography to QCD and nuclear physics

**Juan Maldacena** (IAS-Princeton, USA)  
Closing lecture

**Herman Verlinde** (Princeton University, USA)  
Formal aspects and tests

**Konstantin Zarembo** (Nordita, Sweden)  
Integrability and AdS/CFT

## WORKSHOP SPEAKERS

**Matteo Baggioli** (Shanghai Jiaotong U., China)

**Nikolay Bobev** (Leuven U., Belgium)

**Nadav Drukker** (King's College, London, UK)

**Johanna Erdmenger** (Wuerzburg U., Germany)

**Carlos Hoyos** (Oviedo U., Spain)

**Hai Lin** (Southeast University, China)

**Juan Maldacena** (IAS, Princeton, USA)

**Dario Martelli** (Turin U. and INFN, Turin, Italy)

**Rob Myers** (Perimeter Institute, Canada)

**Niels Obers** (Niels Bohr I., Denmark)

**Leopoldo Pando-Zayas** (Michigan U., USA and ICTP, Trieste, Italy)

**Kostas Skenderis** (Southampton U., UK)

**Dam Thanh Son** (Chicago U., USA)

**Alessandro Tomassielo** (Milan U. and INFN Milan, Italy)

**Herman Verlinde** (Princeton U., USA)

**Konstantin Zarembo** (Nordita, Sweden)

**Dmitry Melnikov** (International Institute of Physics – UFRN, Brazil)

**James Sparks** (University of Oxford, UK)

**Diego Hernán Correa** (Instituto de Física La Plata, Argentina)

The AdS/CFT correspondence, first proposed by Juan Maldacena in 1997, relates non-gravitational theories with a gravitational theory in a higher dimension, the correspondence being holographic in nature. Since it is a non-perturbative duality, such that a weakly coupled model on one side corresponds to a strongly coupled (hard to solve) one on the other, it has been applied to understand a multitude of interesting strongly coupled problems in various areas of theoretical physics. The various areas represented at the Holography@25 event will include: formal aspects, definition and tests; applications to QCD and nuclear physics; applications to condensed matter theory; applications to black holes, information, chaos and complexity; and applications to integrability.

The Holography@25 event will take place at the ICTP-SAIFR in São Paulo, Brazil, and will include a **School (June 5-13, 2023)** for graduate students and a **Workshop (June 14-17, 2023)** for researchers. The AdS/CFT correspondence, generalized to gauge/gravity duality, or in one word, holography, has become an important tool of theoretical physics, and it is the purpose of the School to familiarize the participants with its methods and applications. The School will be followed by a 4-day workshop celebrating the 25th anniversary of the birth of the AdS/CFT correspondence and will bring together researchers who will describe new advances from all the areas of the correspondence discussed at the School.

There is no registration fee and limited funds are available for travel and local expenses.

**Application deadline:**  
**April 2, 2023**

**Online application form and more information:**  
<https://www.ictp-saifr.org/holography25/>



## ORGANIZERS

Horatiu Nastase (IFT-UNESP, Brazil)

Carlos Nunez (Swansea U., UK)

Diego Trancanelli (IF-USP, Brazil and Modena U., Italy)

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