# Welcome to the conference on the Physics of the Two Infinities!

### Second International Conference on the Physics of the two Infinities

### **Scientific Advisory Committee**

Masaki Ando (Tokyo) Matteo Barsuglia (Paris) Cédric Cerna (Chicago) Mamoru Doi (Tokyo) **Josquin Errard (Paris) Armand Fiasson (Annecy)** Michel Gonin (Tokyo) Katsuki Hiraide (Tokyo) **Tetiana Hrynova (Annecy)** Masaya Ishino (Tokyo) Yoshitaka Itow (Tokyo) Takaaki Kajita (Tokyo) Kotaro Kohno (Tokyo) Yusuke Koshio (Okayama) Kumiko Kotera (Paris) Jia Liu (Tokyo) **Tomotake Matsumura (Tokyo)** Toshinori Mori (Tokyo) Tsuyoshi Nakaya (Kyoto) Shoichi Ogio (Tokyo) **Guillaume Patanchon (Tokyo)** Sebastien Peirani (Tokyo) Benjamin Quilain (Tokyo)

Nicolas Regnault (Paris) Naohito Saito (Tsukuba) Hiroyuki Sekiya (Tokyo) Yves Sirois (Palaiseau) Karim Trabelsi (Tsukuba) Patrice Verdier (Lyon)

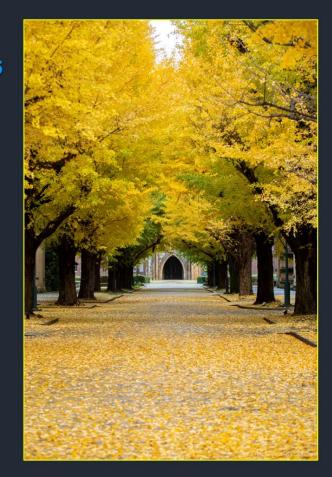
Jun'ichi Yokoyama (Tokyo)

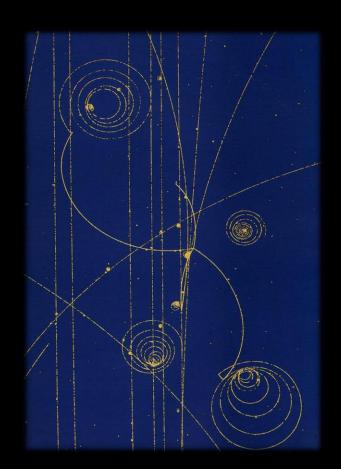
### 17 – 21 November 2025 Hongo Campus Tokyo

#### **Main Topics**

The Primordial Universe
Particle Physics
The Dark Universe
Astrophysics
Gravitational Waves
Neutrinos
High Energy Astrophysics
Al and Machine Learning







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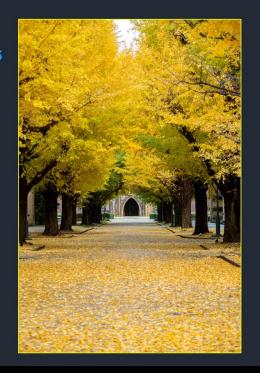
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Blaise Pascal 1623 - 1662



He was the first to write and reflect on the two infinities and the special place of human beings in the observation of the universe that surrounds them.

We are placed "halfway", in the middle, between the infinitely large and the infinitely small scales in our universe .... and he wondered why?



We are placed "halfway", in the middle, between the infinitely large and the infinitely small scales in our universe

If the universe is infinite in both directions, can there be a midpoint?

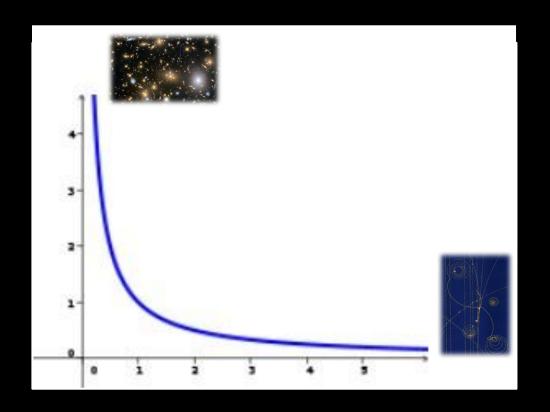


This line has **no endpoints**, so it has **no midpoint** in the usual sense

There's no number m such that it lies "halfway" between  $-\infty$  and  $+\infty$ 

$$\mathbf{m} = \underline{(-\infty) + (+\infty)} \qquad ??$$





If the universe is infinite in both directions, can there be a midpoint?

$$F(x) = 1 / x$$

$$x = 1 =$$

acts as a *balance point*, and can been seen as the "middle" between the infinitely large and the infinitely small ;)



## The best place (on campus) for lunch

The main canteen (1), just next to here, at the bottom of our building.

A good choice of inexpensive dishes.

- 185 registered participants
- 64 plenary talks
- 4 parallels sessions on Wednesday

## Useful information





For capacity reasons, we had to split you between two nearby locations (within the same building at the top of the small hill).

You'll notice two colors on your name tags:

- blue for the more "senior" participants, who will be on the 1st floor,
- yellow for the more "junior" participants, who will be on floor B1.

- 185 registered participants
- 64 plenary talks
- 4 parallels sessions on Wednesday

## Welcome Reception Today (18H40)



## Conference Dinner Thursday (19H00)

• Sortie 1 National Azabu Station Hiroo (H 03) Supermarket Ambassade d'Allemagne Temple shinto Ambassade du Hiroo Plaza Pakistan Banque Tokyo-Mitsubishi Ambassade de France au Japon Gaien-nishi-dori Tél.(03)5798-6000 4-11-44, Minami-Azabu, Minato-ku, Tokyo 106-8514 rs Ebisu Tengenji Korinji Hôpital métropolitain Hiroo de Tokyo vers Ichino-hashi JCI Ecole primaire Keio Yochisha

VENUE : Résidence de France, Embassy of France in Tokyo

4-11-44 Minamiazabu, Minato-ku 106-8514 Tokyo

https://maps.app.goo.gl/xU8ukbBTKdApHXcA9

\* Please note that access to the Résidence de France is via Aoki-zaka (see map and link below).

 CONDITIONS OF ACCESS TO THE SITE: All guests, including accompanying persons, must present identification document (e.g. passport) to security at the Résidence reception.

\* If you have not provided the name of your accompanying persons, the organising committee will not be able to grant you access.

## 2F (First Floor)

Coffee break for parallel sessions

Wednesday





# Wishing you a fantastic conference, full of inspiring and captivating presentations!

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