CHARGED MATTER

2027

OKINAWA



「沖縄2027 帯電する物質」国際シンポジウム

BOOK OF ABSTRACTS

October 27–29, 2027

OIST · Okinawa, Japan

Organizers: Dan Daniel (OIST) · Hiroko Miyahara (OIST) · Scott Waitukaitis (ISTA)

WELCOME

This is the second edition of the Charged Matter series. The first took place at ISTA (Austria) in March 2025, with 17 invited speakers and about 100 participants from physics, chemistry, astronomy, biology, and earth and climate science. This edition moves to OIST, to bring the meeting closer to the Asia-Pacific community.

The programme spans fundamental charge-transfer mechanisms, charge-driven interfacial chemistry, droplet and granular electrification, and the role of aerosol and droplet charging in cloud formation and climate. Open questions include the origin of lightning, the cause of triboelectric charging, charge-based biological electrosensing, and the role of charged interactions in planet formation.

We hope the meeting creates connections across fields that share the same questions but rarely meet.

> 本シンポジウムは「Charged Matter」シリーズの第2回です。第1回は2025年3月にISTA（オーストリア）で開催され、17名の招待講演者と、物理学、化学、天文学、生物学、地球・気候科学の各分野から約100名が参加しました。今回は会場をOISTに移し、アジア太平洋地域の研究コミュニティにより近い場所で開催します。
>
> プログラムは、電荷移動の基礎的な機構、電荷が駆動する界面化学、液滴や粉粒体の帯電、そして雲の形成と気候におけるエアロゾルや液滴の帯電の役割に及びます。未解決の問いには、雷の起源、摩擦帯電の原因、電荷にもとづく生物の電気感覚、惑星形成における帯電による相互作用の役割などがあります。
>
> 同じ問いを共有しながら、これまで交流の少なかった分野の間に、本会議が新たなつながりを生むことを願っています。

PROGRAMME AT A GLANCE

- **10** invited talks and **~34** contributed talks over three days
- A group photo, an OIST tour and a poster session on Day 1
- A free afternoon and the banquet dinner on Day 2
- Best oral and poster prizes

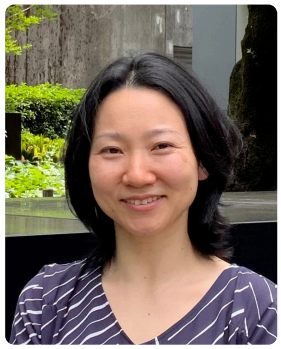
ORGANIZERS



ORGANIZER

Dan Daniel

Droplet and Soft Matter Unit, OIST



ORGANIZER

Hiroko Miyahara

Solar-Terrestrial Environment and Climate Unit, OIST



ORGANIZER

Scott Waitukaitis

Institute of Science and Technology Austria (ISTA)

GENERAL INFORMATION

DATES	October 27–29, 2027 (Wednesday–Friday)
ARRIVAL	Tuesday, October 26, 2027
DEPARTURE	Saturday, October 30, 2027
ABSTRACTS	Submission deadline: **15 February 2027**
REGISTRATION	Deadline: to be announced
VENUE	OIST Campus
CONTACT	charged2027@gmail.com
WEBSITE	https://www.oist.jp/conference/charged-matter-okinawa-2027

REGISTRATION

60,000 JPY per participant. The fee includes meals and accommodation at the OIST Seaside House (single and twin guest rooms); see oist.jp/campus/seaside-house.

> 参加費は1名あたり**60,000円**です。参加費には、食事、およびOISTシーサイドハウス（シングル／ツインのゲストルーム）での宿泊が含まれます。参加費が負担となる場合は、主催者までご連絡ください。個別に対応いたします。

MEALS

Breakfast, coffee breaks, lunch and dinner are included, as shown in the programme.

> 朝食、コーヒーブレイク、昼食、夕食は参加費に含まれます（プログラムをご覧ください）。

CODE OF CONDUCT

All participants are asked to observe the OIST Code of Conduct (available on the conference website).

A NOTE ON TRAVEL BOOKINGS

Conference organizers and invited speakers are often contacted by "travel agencies" to which OIST is not related, based on publicly available information on the web. Please refrain from replying to such agencies unless the organizers have explicitly contacted you beforehand. When in doubt, forward a copy of any such email to the OIST Conferences, Workshops and Symposia Section (workshop@oist.jp).

TRAVEL & ACCOMMODATION

GETTING TO OIST FROM NAHA AIRPORT

The most convenient public connection is the Airport Limousine Bus (Area C) from Naha Airport to the Onna-son resort hotels, including the Rizzan Sea-Park Hotel and The Moon Beach Museum Resort (approx. 1.5–2 hours, 1,700–2,000 JPY); from the Rizzan stop it is a short taxi ride to campus (approx. 800–1,000 JPY). Alternatives: local bus #120 (approx. 2–2.5 hours), taxi (the DiDi and GO apps work well in Okinawa), or a rental car. Full directions: oist.jp/campus/access-map.

ACCOMMODATION

Accommodation is included in the registration fee. Participants stay at the **OIST Seaside House**, on the OIST campus, in single or twin guest rooms. Details of the Seaside House are at oist.jp/campus/seaside-house.

Arrival is on **Tuesday, October 26** and departure on **Saturday, October 30**.

ALTERNATIVE HOTELS

If you prefer a hotel, or need extra nights, these hotels are near campus. Onna-son is a resort area, so we recommend booking early.

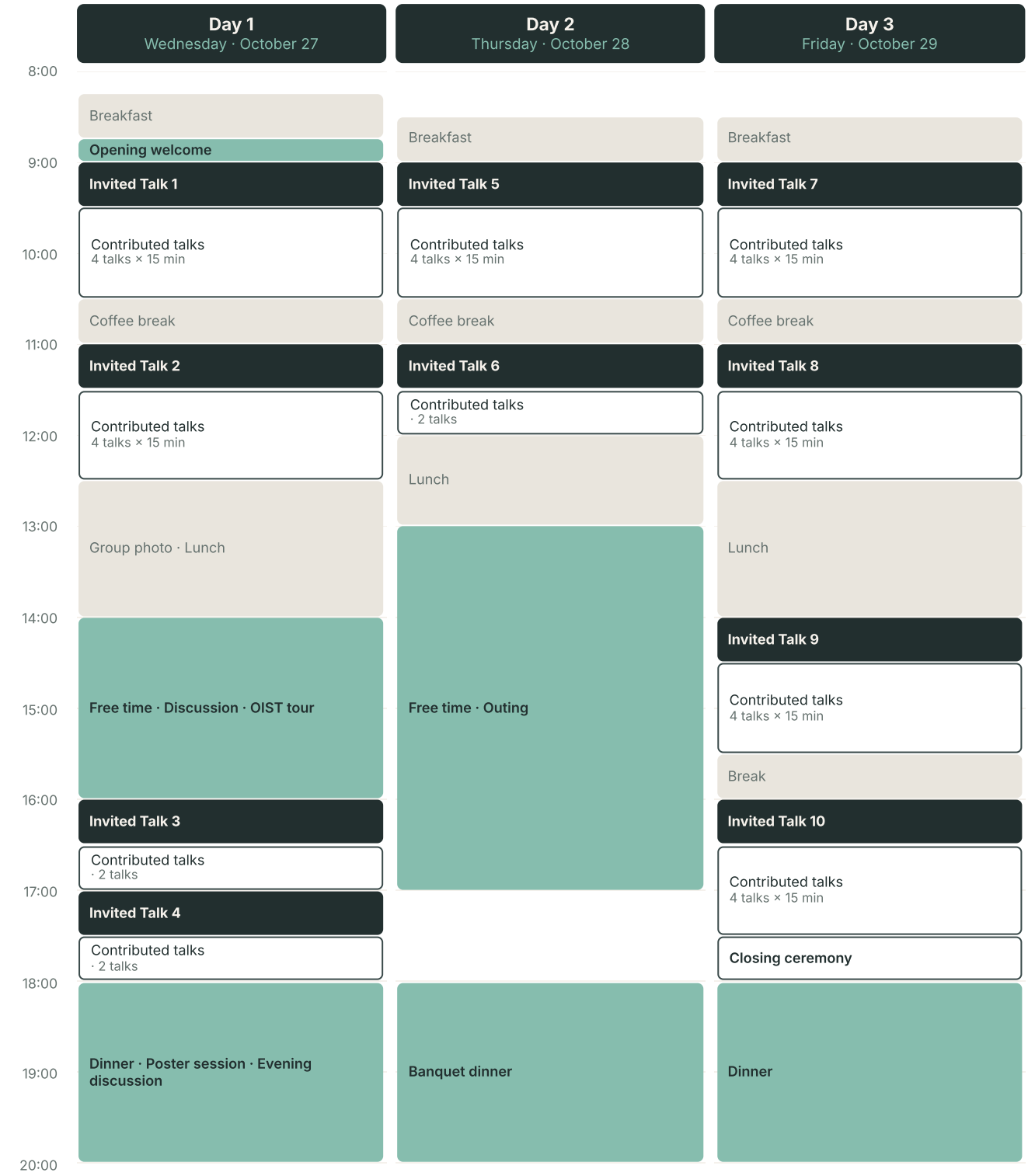
- **THE PERIDOT Smart Hotel Tancha Ward** — **the closest hotel to OIST**, in the same district as the campus (approx. 15 min on foot)
- **Rizzan Sea-Park Hotel Tancha Bay** — large beach resort in Tancha (approx. 30 min on foot); nearest Airport Limousine Bus stop to OIST
- **Kafuu Resort Fuchaku CONDO·HOTEL** — in Fuchaku (approx. 40 min on foot)
- **Hotel Monterey Okinawa Spa & Resort** — beachfront resort in the Fuchaku area
- **The Moon Beach Museum Resort** — beach resort in the Moon Beach area of Onna-son

VISA & LETTER OF INVITATION

International participants are responsible for confirming their own visa requirements for entry to Japan. Many nationalities may enter visa-free for short stays; please check the Japan Ministry of Foreign Affairs website and, if a visa is required, contact your nearest Japanese embassy or consulate well in advance. Registered participants who need a letter of invitation may request one from the organizers. A letter of invitation does not guarantee visa issuance.

PROGRAMME AT A GLANCE

Draft — block heights show actual durations



PROGRAMME IN DETAIL

Draft — session structure and times are provisional

DAY 1 Wednesday · October 27 *Opening · Sessions I & II · Poster session*

8:15–8:45	Breakfast
	SESSION I
8:45–9:00	**Opening welcome**
9:00–9:30	**Invited Talk 1**
9:30–10:30	Contributed talks (4 talks × 15 min)
10:30–11:00	Coffee break
11:00–11:30	**Invited Talk 2**
11:30–12:30	Contributed talks (4 talks × 15 min)
12:30–14:00	Group photo · Lunch
14:00–16:00	**Free time · Discussion · OIST tour**
	SESSION II
16:00–16:30	**Invited Talk 3**
16:30–17:00	Contributed talks (2 talks × 15 min)
17:00–17:30	**Invited Talk 4**
17:30–18:00	Contributed talks (2 talks × 15 min)
18:00–20:00	**Dinner · Poster session · Evening discussion**

DAY 2 Thursday · October 28 *Session III · Free afternoon · Banquet*

8:30–9:00	Breakfast
	SESSION III
9:00–9:30	**Invited Talk 5**
9:30–10:30	Contributed talks (4 talks × 15 min)
10:30–11:00	Coffee break
11:00–11:30	**Invited Talk 6**
11:30–12:00	Contributed talks (2 talks × 15 min)
12:00–13:00	Lunch
13:00–17:00	**Free time · Outing**
18:00	**Banquet dinner**

PROGRAMME IN DETAIL

Draft — session structure and times are provisional

DAY 3 Friday · October 29 *Sessions IV & V · Closing*

8:30–9:00	Breakfast
	SESSION IV
9:00–9:30	**Invited Talk 7**
9:30–10:30	Contributed talks (4 talks × 15 min)
10:30–11:00	Coffee break
11:00–11:30	**Invited Talk 8**
11:30–12:30	Contributed talks (4 talks × 15 min)
12:30–14:00	Lunch
	SESSION V
14:00–14:30	**Invited Talk 9**
14:30–15:30	Contributed talks (4 talks × 15 min)
15:30–16:00	Break
16:00–16:30	**Invited Talk 10**
16:30–17:30	Contributed talks (4 talks × 15 min)
17:30–18:00	**Closing ceremony**
18:00–20:00	**Dinner**

> **In total:** 10 invited talks (30 min each) and ~34 contributed talks (15 min each). Poster session: Day 1, 18:00–20:00. Departure: Saturday, October 30.

INVITED SPEAKERS



Richard Zare
Stanford, USA
INVITED SPEAKER



Xu Deng
UESTC, China
INVITED SPEAKER



Justin Burton
Emory, USA
INVITED SPEAKER



Jean Comtet
ESPCI, France
INVITED SPEAKER



Hans-Jürgen Butt
MPIP Mainz, Germany
INVITED SPEAKER



Maja Vuckovac
Aalto, Finland
INVITED SPEAKER



Anne-Laure Biance
U. Lyon, France
INVITED SPEAKER



Tatsushi Matsuyama
Soka University
INVITED SPEAKER



Hideaki Teshima
Kyushu, Japan
INVITED SPEAKER



Thiago Burgo
São Paulo State University, Brazil
INVITED SPEAKER

INVITED TALKS

Abstracts



INVITED TALK

Title to be announced

Richard Zare
Stanford, USA

Abstract to be added.



INVITED TALK

Title to be announced

Xu Deng
UESTC, China

Abstract to be added.

INVITED TALKS

Abstracts



INVITED TALK

Title to be announced

Justin Burton
Emory, USA

Abstract to be added.



INVITED TALK

Title to be announced

Jean Comtet
ESPCI, France

Abstract to be added.

INVITED TALKS

Abstracts



INVITED TALK

Title to be announced

Hans-Jürgen Butt
MPIP Mainz, Germany

Abstract to be added.



INVITED TALK

Title to be announced

Maja Vuckovac
Aalto, Finland

Abstract to be added.

INVITED TALKS

Abstracts



INVITED TALK

Title to be announced

Anne-Laure Biance
U. Lyon, France

Abstract to be added.



INVITED TALK

Title to be announced

Tatsushi Matsuyama
Soka University

Abstract to be added.

INVITED TALKS

Abstracts



INVITED TALK

Title to be announced

Hideaki Teshima
Kyushu, Japan

Abstract to be added.



INVITED TALK

Title to be announced

Thiago Burgo
São Paulo State University, Brazil

Abstract to be added.

CONTRIBUTED TALKS

Abstracts



~34 TALKS

Contributed abstracts will be added here after submissions are reviewed.

POSTER SESSION

Day 1 · 18:00–20:00



POSTERS

Poster abstracts will be added here.

NOTES