

Space Charge 2026

7th ICFA Beam Dynamics Mini-workshop

Chairs: Adrian Oeftiger and Shinji Machida



UNIVERSITY OF
OXFORD

30 September to 2 October 2026

DEPARTMENT OF
PHYSICS



Science and
Technology
Facilities Council

ISIS Neutron and
Muon Source







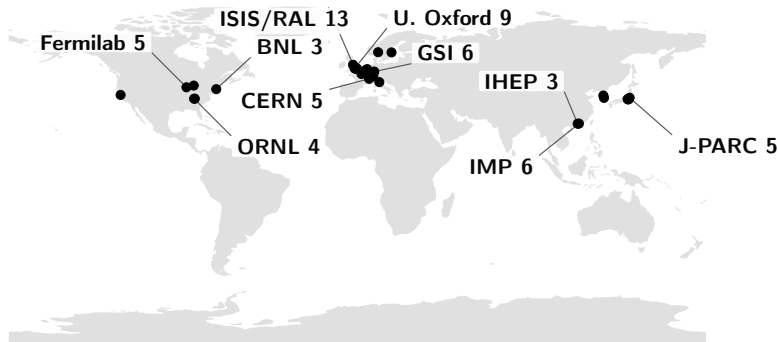


81 participants from 30 institutes:

Country	Participants
United Kingdom	26
United States	16
China	9
Japan	8
Switzerland	7
Germany	7

Country	Participants
Belgium	2
South Korea	2
France	1
Sweden	1
Norway	1
Italy	1
Total	81

81 participants from 30 institutes:



A

Experiments & Operations

- ▶ Performance limits
- ▶ Measurements and compensation
- ▶ Injection and painting
- ▶ Beam loss and halo
- ▶ High-intensity linacs
- ▶ Benchmarking with experiments
- ▶ Space-charge modelling
- ▶ Ring design

B

Design & Modelling

C

Open Beam-Physics Questions

- ▶ Resonances
- ▶ Instabilities
- ▶ New Concepts

A

Experiments & Operations

- ▶ Foteini Asvesta
- ▶ Giulio Stancari

- ▶ Austin Hoover
- ▶ Yoichi Sato

B

Design & Modelling

- ▶ Hiroki Okuno
- ▶ Kiersten Ruisard

- ▶ Ji Qiang
- ▶ Rob Williamson

C

Open Beam-Physics Questions

- ▶ Giuliano Franchetti
- ▶ Adrian Oeftiger
- ▶ Elias Métral

Feedback much appreciated until 9th October:



menti.com

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What surprised you most during the SC26 Programme?

17 / 28 15

The breadth of space charge topics

Number of participants. Fruitful discussion.

No big surprise, because it was very well organized

The range of topics covered

It was all perfect, no surprises

The breadth of topics involved (that I knew nothing about)

I am happy to meet with Ingo

The amount of discussions and how participants were engaged.

Politeness of arguments

Fruitful discussions

The excitement in the community

Amazing organization, amazing food with great discussions.

The amazing poster

Perfect

Honestly - to me I didn't expect this much extensive study people are doing for this only topic of Space Charge in AP. I'm so grateful that I become part of this workshop. Thanks.

Given that we were 80 instead of 40-50 participants, how did the workshop format work for you?

25 / 28

> Balance between presentations and discussion



> 10+5 min format for oral presentations



> 180-Second Challenge for Poster Presentations



● For the next workshop: 1 thing to keep, 1 thing to change

👤 19 / 28 ● 16

Keep: high attendance and breadth of experience
Change: location closer to a beach? Mountain?

Keep 180 second talks (and food), fix air conditioning please!

Keep lunch together Change: have more discussion time.

Keep the spirit Change only the location

To change: room size and coffee supply, to keep: the same format

Shorter hours?

Maybe 1 more day to spread out the talks (and have more). Flash talks were great

Keep: 180 second talks. Change: nothing that I can think of

Change to a bigger conference room

Less poster session.

Keep the discussions and the inclusion of open questions in the conclusion of talks! Change... Later start

Change: starting hour the day after the banquet

Keep 180 seconds talks, they were great!

To keep: as it is To change: fix air conditioning

Put posters with coffee (not around corner), keep low fee.

Japan

📍 Where should the next Space Charge workshop take us?

👤 24 / 28



- ▶ "Visitor" **lanyards**, please return to Carl when leaving the lecture theatre (you may take the badges home :-)
- ▶ **Visit** to ISIS and RAL tomorrow: Meet outside DWB at 8:40am (**Photo ID!**)
- ▶ Do feel free to **take left-overs** from the caterer for your travels
- ▶ Don't forget to take down your **posters**
- ▶ The Programme Committee will prepare a report in the coming weeks to summarise the workshop discussions. Feedback appreciated :-)

Space Charge 2026, 7th ICFA BD Mini-workshop

29 September 2026 to 3 October 2026
Oxford University, Physics Department
Europe/London timezone



Overview

Important Dates

Timetable

Contributions: Talks and Posters

Scientific Programme:
Session Topics

RAL Visit (Saturday)

Book of Abstracts

Participant List

Contribution List

My Conference

└ My Contributions

Registration

Programme Committee

Visa/UK Entry
Information

Local Information

Workshop Support

✉ ppadmin@physics.ox.ac.uk

RAL Visit (Saturday)



[Please bring your **Photo ID (passport)** if you participate in the RAL tour.]

On Saturday 3rd October a visit to the Rutherford Appleton Lab in South Oxfordshire, and in particular to the ISIS Neutron and Muon Source and Extreme Photonics Applications Centre (EPAC), will be organised.

08:40: Passport check for RAL entry. Meet in front of Oxford University Physics Department, Denys Wilkinson Building (DWB), Keble Road Oxford OX1 3RH. Google Maps link: <https://maps.app.goo.gl/4J4A254uZ26ZWqky9>

09:00: Departure by coach.

09:30: Arrive at RAL, R80 CR16 and CR17 meeting room and short introduction of the tour.

10:00: Tour starts with groups of 10, departing to each place separately.

- IBEX and FETS: Paul trap experiment and Front End Test Stand of 3 MeV RFQ
- MEET: Medium Energy Beam Transport test stand
- FFA magnet: FFA magnet prototype
- ISIS: Target station area (no access to accelerator because of user run)
- EPAC: Laser driven acceleration

12:30 Return to Oxford by coach.

13:30-14:00 Arrival at DWB in Oxford after having passed by Didcot Parkway Station and Oxford Station.

Please note the schedule may change.

An aerial photograph of the Radcliffe Camera in Oxford, England, taken at dusk. The building is a large, circular, classical-style structure with a prominent dome and many windows that are illuminated from within. It is surrounded by other historic buildings of the university, some with spires and gables. The sky is a clear, deep blue, and the overall scene is bathed in the warm, golden light of the setting sun. The text is overlaid on the central part of the image.

**It has been a great pleasure to host you at Oxford University
for Space Charge 2026!**

See you soon, safe travels!

STFC / ISIS	13
University of Oxford	9
Institute of Modern Physics (IMP), CAS	6
Fermilab	5
CERN	5
GSI	5
J-PARC	5
Oak Ridge National Laboratory	4
IHEP	3
Brookhaven National Laboratory	3
Lawrence Berkeley National Laboratory	2
Paul Scherrer Institute (PSI)	2
Michigan State University / FRIB	1
University of Manchester	1
Goethe University Frankfurt	1
SCK CEN	1
Uppsala University	1
Synchrotron SOLEIL	1
RIKEN	1
National Institutes for Quantum Science and Technology	1
Institute of Science Tokyo	1
Institute for Basic Science	1
University of Tennessee, Knoxville	1
University of Oslo	1
ULB	1
University of Bologna / INFN Bologna	1
Korea University	1
Imperial College London	1
Diamond Light Source	1
Technical University of Darmstadt	1
Royal Holloway, University of London	1