

Session Program

29 September 2026 to 3 October 2026

Space Charge 2026, 7th ICFA BD Mini-workshop

B

Oxford University, Physics Department, Denys Wilkinson Building, Dennis Sciama Lecture Theatre
Keble Road, Oxford OX1 3RH

Wednesday 30 September

11:00

B: High-Intensity Ring Design

Session |

Location: Oxford University, Physics Department, Denys Wilkinson Building, Dennis Sciama Lecture Theatre, Keble Road, Oxford OX1 3RH |

Convener: Robert Williamson

11:00–11:20

Lead talk: High-Intensity Ring Design

Speaker

Robert Williamson

11:20–11:35

Local correction of nonlinear space-charge effects by ring lattice design

Speaker

Takaaki Yasui

11:35–11:50

Designing experiments to study beam dynamics at high space charge intensities in the SNS accumulator ring

Speaker

Austin Hoover

11:50–12:05

Impacts of Tune Asymmetry on the Space Charge Limit in High Intensity Circular Accelerators

Speaker

Joshua Appleby

12:05–12:30

Discussion Session B-4

Speaker

Robert Williamson

12:30

Thursday 1 October

08:30

B: High-Intensity Linacs

Session |

Location: Oxford University, Physics Department, Denys Wilkinson Building, Dennis Sciama Lecture Theatre, Keble Road, Oxford OX1 3RH |

Convener: Okuno Hiroki

08:30–08:50

Lead talk: High-Intensity Linacs

Speaker

Okuno Hiroki

08:50–09:05

Reduction of longitudinal rms emittance through nonlinear space-charge forces

Speaker

Jibong Hyun

09:05–09:20

Space-Charge Stability and Beam-Loss Margins in the PIP-II Linac

Speaker

Abhishek Pathak

09:20–09:35

Parametric instabilities in actual high-intensity linear accelerators

Speaker

Dong-O Jeon

09:50–10:15

Discussion Session B-1

Speaker

Okuno Hiroki

10:15

Friday 2 October

08:30

B: Benchmarking and Experiments

Session |

Location: Oxford University, Physics Department, Denys Wilkinson Building, Dennis Sciama Lecture Theatre, Keble Road, Oxford OX1 3RH |

Convener: Kiersten Ruisard

08:30–08:50

Lead talk: Benchmarking and Experiments

Speaker

Kiersten Ruisard

08:50–09:05

Benchmarking PIC simulations against the SNS Beam Test Facility

Speaker

Dr Tony Wood

09:05–09:20

Space-charge dynamics in bare IOTA: Benchmarking among simulations and experiment

Speaker

Nilanjan Banerjee

09:20–09:35

Benchmarking Experience with PTC-PyORBIT for High-Intensity Synchrotron Studies

Speaker

Haroon Rafique

09:35–09:50

Space Charge Effects in the Alternating Gradient Synchrotron at injection energies

Speaker

Yichao Jing

09:50–10:15

Discussion Session B-2

Speaker

Kiersten Ruisard

10:15

10:45

B: Space-Charge Modelling

Session |

Location: Oxford University, Physics Department, Denys Wilkinson Building, Dennis Sciama Lecture Theatre, Keble Road, Oxford OX1 3RH |

Convener: Ji Qiang

10:45–11:05

Lead talk: Space-Charge Modelling

Speaker

Ji Qiang

11:05–11:20

Performance-Portable Space-Charge Methods in OPALX for Hadron and Lepton Accelerator Modelling

Speaker

Michail Zampetakis

11:20–11:35

Fast-Tracking Space Charge tool for Nonlinear Dynamics study in Realistic Collider Lattices**Speaker**

Helena Alamprese

11:50–12:05

Space Charge Physics in the Code ImpactX**Speaker**

Chad Mitchell

12:05–12:30

Discussion Session B-3**Speaker**

Ji Qiang

12:30