

Session Program

24-27 Feb 2025

First Quantisation for Physics in Strong Fields Talk

James Clerk Maxwell Building , Higgs Centre Seminar Room (4305)
School of Physics and Astronomy University of Edinburgh James Clerk Maxwell Building Peter Guthrie
Tait Road Edinburgh EH9 3FD

Monday 24 February

13:30

Talk

Session |

Location: James Clerk Maxwell Building , Higgs Centre Seminar Room (4305), School of Physics and Astronomy
University of Edinburgh James Clerk Maxwell Building Peter Guthrie Tait Road Edinburgh EH9 3FD |

Convener: James Edwards

13:30-14:15

Unified Worldline treatment of a Dirac particle with (pseudo)scalar and (axial)vector couplings

Speaker

Olindo Corradini

14:15

14:15

Talk

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Convener: James Edwards

14:15-15:00

Low-energy master formulae on the loop and line in a homogeneous electromagnetic field

Speaker

Patrick Copinger

15:00

Tuesday 25 February

09:15

Talk

Session |

Location: James Clerk Maxwell Building , Higgs Centre Seminar Room (4305), School of Physics and Astronomy
University of Edinburgh James Clerk Maxwell Building Peter Guthrie Tait Road Edinburgh EH9 3FD |

Convener: Anton Ilderton

09:15–10:00

The Worldline Formalism and the Gauge/Gravity Correspondence

Speaker

Adi Armoni

10:00

10:00

Talk

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Convener: Anton Ilderton

10:00–10:45

Magnetic monopole pair production in strong magnetic fields

Speaker

Arttu Rajantie

10:45

13:45

Talk

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13:45–14:30

Worldline instantons for the momentum spectrum of strong-field-QED processes in space-time dependent fields

Speaker

Greger Torgimsson

14:30

14:30

Talk

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Convener: Patrick Copinger

14:30–15:15

Boundary conditions and proper-time contours for worldline path integrals

Speaker

Karthik Rajeev

15:15

Wednesday 26 February

09:15

Talk

Session |

Location: James Clerk Maxwell Building , Higgs Centre Seminar Room (4305), School of Physics and Astronomy
University of Edinburgh James Clerk Maxwell Building Peter Guthrie Tait Road Edinburgh EH9 3FD |

Convener: Karthik Rajeev

09:15-10:00

Worldline approach for spinning bound binaries

Speaker

Riccardo Gonzo

10:00

10:00

Talk

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Convener: Karthik Rajeev

10:00-10:45

Gravitational Waves from Worldline Quantum Field Theory

Speaker

Gustav Mogull

10:45

Thursday 27 February

09:15

Talk: Plenary Address

Session |

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Convener: James Edwards

09:15–10:00

Worldline approach to QED in external fields

Speaker

Christian Schubert

10:00

10:00

Talk

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Convener: Riccardo Gonzo

10:00–10:45

Classical worldlines from scattering amplitudes

Speaker

Dr Mao Zeng

10:45

11:15

Talk

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Convener: Riccardo Gonzo

11:15–12:00

Tadpole contribution to magnetic photon-graviton conversion

Speaker

Naser Ahmadinia

12:00

14:15

Talk

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Convener: Anton Ilderton

14:15–15:00

Flying focus, self-duality and scattering

Speaker

Tim Adamo

15:00