

JAI Fest

Report of Contributions

Contribution ID: 1

Type: **not specified**

Welcome and introduction

Friday 6 December 2019 12:00 (20 minutes)

Presenter: BURROWS, Philip Nicholas (University of Oxford (GB))

Session Classification: Session 1 (Denys Sciama): Chair: Stephen Gibson

Contribution ID: 2

Type: **not specified**

Summary of FONT nanometer-level beam stabilization results at KEK ATF2

Friday 6 December 2019 12:20 (20 minutes)

Presenter: RAMJIAWAN, Rebecca Louise (University of Oxford (GB))

Session Classification: Session 1 (Denys Sciama): Chair: Stephen Gibson

Contribution ID: 3

Type: **not specified**

Ground motion effects in the (HL-)LHC

Friday 6 December 2019 12:40 (20 minutes)

Presenter: GARCIA MORALES, Hector (University of Oxford)

Session Classification: Session 1 (Denys Sciama): Chair: Stephen Gibson

Contribution ID: 4

Type: **not specified**

Simulation studies of Electro-Optic-BPMs for HL-LHC

Friday 6 December 2019 13:00 (20 minutes)

Presenter: ARTECHE GONZALEZ, Alberto (University of London (GB))

Session Classification: Session 1 (Denys Sciamma): Chair: Stephen Gibson

Contribution ID: 5

Type: **not specified**

FASER Simulations: Particle propagation in and out of an accelerator

Friday 6 December 2019 13:40 (20 minutes)

Presenter: LEFEBVRE, Helena (University of London (GB))

Session Classification: Session 1 (Denys Sciama): Chair: Stephen Gibson

Contribution ID: 6

Type: **not specified**

Breakdown-Loaded Electric Field as a High Gradient Limit

Friday 6 December 2019 14:00 (20 minutes)

Presenter: Mr PASZKIEWICZ, Jan (University of Oxford (GB))

Session Classification: Session 1 (Denys Sciama): Chair: Stephen Gibson

Contribution ID: 7

Type: **not specified**

Beam Instabilities at ISIS

Friday 6 December 2019 15:30 (20 minutes)

Presenter: WILLIAMSON, Robert (STFC)

Session Classification: Session 2 (Denys Sciama): Chair Zulfikar Najmudin

Contribution ID: 8

Type: **not specified**

Using the IBEX Paul trap to test nonlinear integrable optics

Friday 6 December 2019 15:50 (20 minutes)

Presenters: MARTIN, Lucy Kate (University of Oxford (GB)); MARTIN, Lucy (University of Oxford)

Session Classification: Session 2 (Denys Sciama): Chair Zulfikar Najmudin

Contribution ID: 9

Type: **not specified**

Loss reduction techniques for synchrotron slow extraction and beam delivery: simulations and recent measurements at MedAustron

Friday 6 December 2019 16:10 (20 minutes)

Slow extraction using third integer resonance and a thin electrostatic septum is a common extraction scheme employed when a continuous beam delivery is required downstream, such as in medical ion-therapy treatment or for fixed target physics experiments. Moreover, the beam often needs to be split in the transfer line after being extracted, if a simultaneous continuous spill is requested by more than one user. This is the case in the SPS North Area transfer line (TT20), where a Lambertson splitter septum is used. Both the extraction and the splitting processes are intrinsically lossy, as some particles inevitably impact with the septa blades or the aperture. In this contribution, loss reduction techniques are explored with the aim to reduce overall losses from the synchrotron to the user. Different slow extraction techniques, namely quadrupole sweep, betatron core and constant optics (COSE), are compared in simulations as well as through recently acquired data taken at the MedAustron ion beam cancer treatment facility in Wiener Neustadt, Austria.

Presenter: ARRUTIA SOTA, Pablo Andreas (University of London (GB))

Session Classification: Session 2 (Denys Sciama): Chair Zulfikar Najmudin

Contribution ID: **10**

Type: **not specified**

Experimental Considerations for Staged Acceleration on Astra Gemini

Friday 6 December 2019 16:30 (20 minutes)

Presenter: GRUSE, Nic (Imperial College)

Session Classification: Session 2 (Denys Sciama): Chair Zulfikar Najmudin

Contribution ID: 11

Type: **not specified**

Modelling the Signal to Noise Ratio of Breit-Wheeler Detection Experiments with Geant4

Friday 6 December 2019 16:50 (20 minutes)

Presenter: WATT, Rob (Imperial College)

Session Classification: Session 2 (Denys Sciama): Chair Zulfikar Najmudin

Contribution ID: 12

Type: **not specified**

Low-Density Waveguides for multi-GeV Laser-Plasma Accelerators

Friday 6 December 2019 17:10 (20 minutes)

Presenter: PICKSLEY, Alex (University of Oxford)

Session Classification: Session 2 (Denys Sciama): Chair Zulfikar Najmudin

Contribution ID: 13

Type: **not specified**

From particle physics to cancer therapy

Presenter: DOSANJH, Manjit (CERN)

Contribution ID: 14

Type: **not specified**

BDSIM applications for proton therapy

Presenter: SHIELDS, William (Royal Holloway, University of London)

Contribution ID: 15

Type: **not specified**

LARA: a laser-based beamline for clinical applications

Presenters: KURUP, Ajit (Imperial College Sci., Tech. & Med. (GB)); KURUP, Ajit

Contribution ID: 16

Type: **not specified**

From medical accelerators to frontier accelerators... and back again

Presenter: Dr SHEEHY, Suzie (University of Oxford and STFC/ASTeC/RAL)

Contribution ID: 17

Type: **not specified**

Ion beam collimation for future hadron colliders

Friday 6 December 2019 14:20 (20 minutes)

Presenter: ABRAMOV, Andrey (University of London (GB))

Session Classification: Session 1 (Denys Sciama): Chair: Stephen Gibson

Contribution ID: 18

Type: **not specified**

Progress on Muon Ionisation Cooling Demonstration with MICE

Friday 6 December 2019 14:40 (20 minutes)

Presenter: Mr JURJ, Paul (Imperial College London)

Session Classification: Session 1 (Denys Sciama): Chair: Stephen Gibson

Contribution ID: 19

Type: **not specified**

Narrow energy spread, GeV electron beams from shock injection in a laser wakefield accelerator

Friday 6 December 2019 17:30 (20 minutes)

Presenter: COLGAN, Cary (Imperial College London)

Session Classification: Session 2 (Denys Sciama): Chair Zulfikar Najmudin

Contribution ID: 20

Type: **not specified**

Using X-rays from a laser wakefield accelerator to perform ultrashort multi-Kev absorption spectroscopy

Friday 6 December 2019 17:50 (20 minutes)

Presenter: KETTLE, Brendan (Imperial College London)

Session Classification: Session 2 (Denys Sciama): Chair Zulfikar Najmudin

Contribution ID: 21

Type: **not specified**

Crystal channeling for HL-LHC collimation

Friday 6 December 2019 13:20 (20 minutes)

Presenter: NEVAY, Laurie (Royal Holloway University of London)

Session Classification: Session 1 (Denys Sciama): Chair: Stephen Gibson