

Session Program

9-13 Oct 2023



HB2023

WGA - Beam Dynamics in Rings

CERN, 500/1-001 - Main Auditorium

Tuesday 10 October

08:55

WGA - Beam Dynamics in Rings

Session | **Location:** CERN, 500/1-001 - Main Auditorium | **Conveners:** Giovanni Rumolo, WANG Na wangn, Jean-Luc Vay

08:55-09:15 **"Inverse Stability Problem in Beam Dynamics"**

Speakers

Alexey Burov, Alexey Burov

09:15-09:25 **Discussion**

09:25-09:45

"New Understanding of Longitudinal Beam Instabilities and Comparison With Measurements"

Speakers

Ivan Karpov, Ivan Karpov

09:45-09:55 **Discussion**

09:55-10:10 **"Major longitudinal impedance sources in the J-PARC main ring"**

Speaker

Aine Kobayashi

10:10-10:20 **Discussion**

10:20-10:35 **"High Intensity Beam Dynamics Challenges for HL-LHC"**

Speaker

Nicolas Mounet

10:35-10:45 **Discussion**

10:45

11:05

WGA - Beam Dynamics in Rings

Session | **Location:** CERN, 500/1-001 - Main Auditorium | **Conveners:** Giovanni Rumolo, Jean-Luc Vay, WANG Na wangn

11:05-11:25 **"Xsuite: an integrated beam physics simulation framework"**

Speakers

Giovanni Iadarola, Giovanni Iadarola

11:25-11:35 **Discussion**

11:35-11:55 **"Community Modeling Tools for High Brightness Beam Physics"**

Speaker

Chad Eugene Mitchell

11:55-12:05 **Discussion**

12:05-12:20

"Beam-beam effects: modelling, measurements and correction strategy on the luminosity calibration measurements at the Large Hadron Collider experiments"

Speakers

Dr Tatiana Pieloni, Tatiana Pieloni

12:20-12:30

Discussion

12:30-12:45

"Recent advances in the CERN PS impedance model and instability simulations"

Speaker

Sebastien Joly

12:45-12:55

Discussion

12:55

Wednesday 11 October

08:55

WGA - Beam Dynamics in Rings

Session | **Location:** CERN, 500/1-001 - Main Auditorium | **Conveners:**
Giovanni Rumolo, Jean-Luc Vay, WANG Na wang

08:55-09:15

"Development and Application of High-Performance CISP-GPU Code for High Intensity Effects in Hiaf"

Speaker

Jie Liu

09:15-09:25

Discussion

09:25-09:45

"Analytical and numerical studies on kicked beams in the context of half-integer studies"

Speakers

Giuliano Franchetti, Giuliano Franchetti

09:45-09:55

Discussion

09:55-10:10

"Bunch-by-bunch tune shift studies for LHC-type beams in the CERN SPS"

Speakers

Ingrid Mases, Ingrid Mases Sole

10:10-10:20

Discussion

10:20-10:35

"Design of a proof-of-principle Experiment for the DLMN Method to Identify Magnetic Field Errors"

Speakers

Conrad Caliarì, Conrad Caliarì

10:35-10:45

Discussion

10:45

11:05

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11:05-11:25

"Compensation of Third-Order Resonances in the High Intensity Regime"

Speakers

Cristhian Eduardo Gonzalez-Ortiz, Cristhian Eduardo Gonzalez-Ortiz

11:25-11:35

Discussion

11:35-11:55

"Space charge induced resonances and suppression in J-PARC MR"

Speakers

Takaaki Yasui, Takaaki Yasui

11:55-12:05 **Discussion**

12:05-12:20

"Tune Optimization for Alleviating Space Charge Effects and Suppressing Beam Instability in the RCS of CSNS"

Speaker

Shouyan Xu

12:20-12:30 **Discussion**

12:30-12:45

"Effects of statistical dependence in the transverse planes for non-Gaussian beam distributions"

Speaker

Eleanor Lamb

12:45-12:55 **Discussion**

12:55

Thursday 12 October

08:50

WGA - Beam Dynamics in Rings

Session | **Location:** CERN, 500/1-001 - Main Auditorium | **Conveners:**
WANG Na wangn, Jean-Luc Vay, Giovanni Rumolo

08:50–09:10 **"Performance and upgrade considerations for the CSNS injection"**

Speaker
Ming-Yang Huang

09:10–09:20 **Discussion**

09:20–09:40

"High-Intensity Studies on the ISIS RCS and their Impact on the Design of ISIS-II"

Speaker
Robert Williamson

09:40–09:50 **Discussion**

09:50–10:10

Predominantly electric "E&m" storage ring with nuclear spin control capability

Speaker
Richard Talman

10:10–10:20 **Discussion**

10:20–10:35

"Coherent dispersion effects in 2-D coasting beams and 3-D bunched beams in high-intensity hadron synchrotrons"

Speaker
Yaoshuo Yuan

10:35–10:45 **Discussion**

10:45