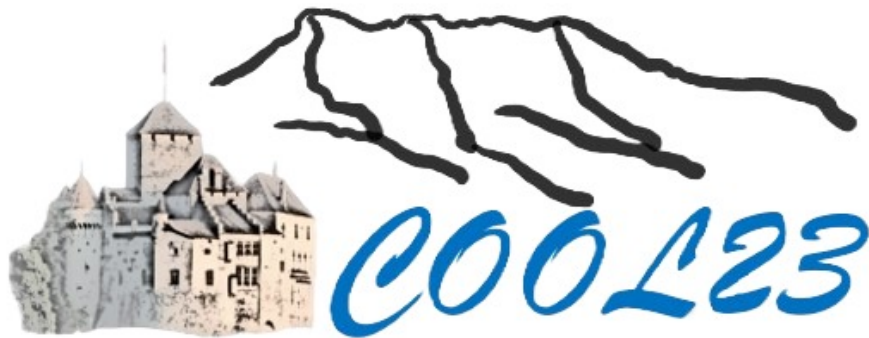


# COOL 2023 conference



## Report of Contributions

Contribution ID: 1

Type: **not specified**

# Welcome

*Monday 9 October 2023 09:30 (15 minutes)*

**Presenter:** TRANQUILLE, Gerard Alain (CERN)

**Session Classification:** Opening session

Contribution ID: 2

Type: **not specified**

# Accelerator Physics Requirements for Electron Cooler at the EIC Injection Energy

*Monday 9 October 2023 11:00 (30 minutes)*

**Presenter:** FEDOTOV, Alexei

**Session Classification:** Existing and future facilities

Contribution ID: 3

Type: **not specified**

# Cooling of Rare Isotope Beams in the ESR Storage Ring

*Monday 9 October 2023 11:30 (30 minutes)*

**Presenter:** STECK, Markus

**Session Classification:** Existing and future facilities

Contribution ID: 4

Type: **not specified**

## **Perspective of a Dual Energy Electron Storage Ring Cooler for a Hadron Beam Cooling**

*Monday 9 October 2023 14:00 (30 minutes)*

**Presenter:** LIN, Fanglei (ORNL)

**Session Classification:** Electron cooling

Contribution ID: 5

Type: **not specified**

## **Low-Energy Electron Cooling at the Cryogenic Storage Ring**

*Monday 9 October 2023 14:30 (30 minutes)*

**Presenter:** NOVOTNY, Oldrich (Max Planck Institute for Nuclear Physics)

**Session Classification:** Electron cooling

Contribution ID: 6

Type: **not specified**

## **Specifications and Status of the New Electron Cooler for the CERN Antiproton Decelerator (AD)**

*Monday 9 October 2023 15:00 (30 minutes)*

**Presenter:** ROSSI, Adriana (CERN)

**Session Classification:** Electron cooling

Contribution ID: 7

Type: **not specified**

## **Observation of the Ion Imprint in CeC Electron Beam**

*Tuesday 10 October 2023 09:00 (30 minutes)*

**Presenter:** LITVINENKO, Vladimir

**Session Classification:** Cooled beam dynamics and theory



Contribution ID: 8

Type: **not specified**

## **Studies of Ion Beam Heating in LEReC**

*Tuesday 10 October 2023 09:30 (30 minutes)*

**Presenter:** SELETSKIY, Sergey

**Session Classification:** Cooled beam dynamics and theory

Contribution ID: 9

Type: **not specified**

## **Dynamic Aperture and Frequency Analysis in Elena with Electron Cooler Magnetic Field Included**

*Tuesday 10 October 2023 10:00 (30 minutes)*

**Presenter:** BOJTAR, Lajos (CERN)

**Session Classification:** Cooled beam dynamics and theory

Contribution ID: **10**

Type: **not specified**

# **Experimental Demonstration of High-Gain Plasma Cascade Amplifier**

*Tuesday 10 October 2023 11:30 (30 minutes)*

**Presenter:** LITVINENKO, Vladimir

**Session Classification:** Cooling hardware and diagnostics

Contribution ID: 11

Type: **not specified**

## **Status of Beam Instrumentation at the Electron Beam Test Stand at CERN**

*Tuesday 10 October 2023 11:00 (30 minutes)*

**Presenter:** Dr SAMEED, - (CERN)

**Session Classification:** Cooling hardware and diagnostics

Contribution ID: 12

Type: **not specified**

# Stochastic Cooling of Electrons and Positrons With EUV Light

*Tuesday 10 October 2023 14:00 (30 minutes)*

**Presenter:** ZHOLENTS, Alexander (Argonne National Laboratory)

**Session Classification:** Stochastic cooling

Contribution ID: 13

Type: **not specified**

## **Development of Stochastic Cooling Components for HIAF Accelerator**

*Tuesday 10 October 2023 14:30 (30 minutes)*

**Presenter:** ZHU, Guangyu (institute of modern physics chinese academy of sciences)

**Session Classification:** Stochastic cooling

Contribution ID: 14

Type: **not specified**

## **A Study of the Wiggler Enhanced Plasma Amplifier for Coherent Electron Cooling**

*Tuesday 10 October 2023 15:00 (30 minutes)*

**Presenter:** ZHOLENTS, Alexander (Argonne National Laboratory)

**Session Classification:** Stochastic cooling

Contribution ID: 15

Type: **not specified**

## **Laser cooling of bunched O5+ ion beams at the CSRe: investigation of coherent effect and extraction of momentum distribution from Schottky spectrum**

*Tuesday 10 October 2023 16:00 (30 minutes)*

**Presenter:** WANG, Hanbing

**Session Classification:** Laser cooling



Contribution ID: 16

Type: **not specified**

## **Laser Cooling taken to the Extreme at the FAIR SIS100**

*Tuesday 10 October 2023 16:30 (30 minutes)*

**Presenter:** WINTERS, Danyal

**Session Classification:** Laser cooling

Contribution ID: 17

Type: **not specified**

# **Laser Cooling of Stored Bunched Relativistic Carbon Ions at the ESR, using a Novel Tunable High Repetition Rate Pulsed Laser System**

*Tuesday 10 October 2023 17:00 (30 minutes)*

**Presenter:** KLAMMES, Sebastian (GSI Helmholtzzentrum für Schwerionenforschung GmbH)

**Session Classification:** Laser cooling

Contribution ID: **18**

Type: **not specified**

## **Parameters Optimization for EIC Ring Cooler**

*Wednesday 11 October 2023 09:00 (30 minutes)*

**Presenter:** SELETSKIY, Sergey

**Session Classification:** Existing and future facilities

Contribution ID: 19

Type: **not specified**

## **Advances and Challenges in Coherent Electron Cooling Experiment at RHIC**

*Wednesday 11 October 2023 09:30 (30 minutes)*

**Presenter:** LITVINENKO, Vladimir

**Session Classification:** Existing and future facilities

Contribution ID: 20

Type: **not specified**

## **Status and Prospects for the Antimatter Factory at CERN**

*Wednesday 11 October 2023 10:00 (30 minutes)*

**Presenter:** Dr JOERGENSEN, Lars Varming (CERN)

**Session Classification:** Existing and future facilities

Contribution ID: 21

Type: **not specified**

## **Self Bunching, RF Bunching and Cooling of Ions in an Electrostatic Ion Beam Trap**

*Wednesday 11 October 2023 11:00 (30 minutes)*

**Presenter:** SHARMA, Deepak (Weizmann Institute of Science)

**Session Classification:** Storage and cooling in traps

Contribution ID: 22

Type: **not specified**

## **Heavy, Highly-charged Ions at GSI/FAIR Decelerated and Cooled**

*Wednesday 11 October 2023 11:30 (30 minutes)*

**Presenter:** HERFURTH, Frank

**Session Classification:** Storage and cooling in traps

Contribution ID: 23

Type: **not specified**

# Theoretical and Simulation Study of Disperse Electron Cooling

*Thursday 12 October 2023 09:00 (30 minutes)*

**Presenter:** ZHAO, HE (Institute of Modern Physics)

**Session Classification:** Electron cooling



Contribution ID: 24

Type: **not specified**

## **Sustaining Competences for Electron Cooling at HESR**

*Thursday 12 October 2023 09:30 (30 minutes)*

**Presenter:** AULENBACHER, Kurt (Institut für Kernphysik, Universität Mainz)

**Session Classification:** Electron cooling

Contribution ID: 25

Type: **not specified**

# **Towards More Realistic Simulations of the Coherent Electron Cooling Experiment**

*Thursday 12 October 2023 11:00 (30 minutes)*

**Presenter:** WANG, Gang

**Session Classification:** Cooled beam dynamics and theory

Contribution ID: 26

Type: **not specified**

## **Design to Achieve Uniform Electron Beam in Coherent Electron Cooling**

*Thursday 12 October 2023 11:30 (30 minutes)*

**Presenter:** JING, Yichao (BNL)

**Session Classification:** Cooled beam dynamics and theory

Contribution ID: 35

Type: **not specified**

# Electron Cooling of Low-Energy Ion Beams in CRYRING@ESR

*Friday 13 October 2023 09:00 (30 minutes)*

**Presenter:** KRANTZ, Claude (GSI Helmholtzzentrum für Schwerionenforschung GmbH(GSI))

**Session Classification:** Electron cooling

Contribution ID: 36

Type: **not specified**

## **Electron Cooling in NICA Accelerator Complex**

*Friday 13 October 2023 09:30 (30 minutes)*

**Presenter:** SYRESIN, Evgeny (Joint Institute for Nuclear Researches)

**Session Classification:** Electron cooling

Contribution ID: 37

Type: **not specified**

## **Experiments on Electron Cooling and Intense Space-Charge at IOTA**

*Friday 13 October 2023 10:00 (30 minutes)*

**Presenter:** BANERJEE, Nilanjan (Fermi National Accelerator Laboratory)

**Session Classification:** Electron cooling

Contribution ID: **38**

Type: **not specified**

## **Characterisation of E-cooling at 100 keV in ELENA**

*Thursday 12 October 2023 10:00 (30 minutes)*

**Presenter:** GAMBA, Davide (CERN)

**Session Classification:** Electron cooling

Contribution ID: 39

Type: **not specified**

## Fundamental Physics with Anithydrogen

*Friday 13 October 2023 11:00 (50 minutes)*

**Presenter:** Prof. HANGST, Jeffrey Scott (Aarhus University (DK))

**Session Classification:** Closing session



Contribution ID: 40

Type: **not specified**

## Closing remarks

*Friday 13 October 2023 11:50 (10 minutes)*

**Presenter:** TRANQUILLE, Gerard Alain (CERN)

**Session Classification:** Closing session