



**57th ICFA Advanced Beam Dynamics
Workshop on High-Intensity and
High-Brightness Hadron Beams**

**Workshop Programme
and
Abstracts**

**Scandic Triangeln Hotel, Malmö, Sweden
2016 July 3-8**



1 Welcome to HB2016

Welcome to Malmö and to the 57th ICFA advanced beam dynamics workshop on high-intensity and high-brightness hadron beams.

HB, High-Brightness High-Intensity Hadron Beams workshop series is and has been a network for scientists and engineers involved in the study, design, development or operation of hadron accelerators.

Since the first HB within the ICFA's (International Committee for Future Accelerators) ABDW (Advanced Beam Dynamics Workshops) series, there has been a giant leap in the size and power of high intensity hadron accelerators, and our community has successfully broken one record after another. At the time of the first HB, the highest power accelerator had not yet reached a megawatt of power; today we have accelerators operating above 1 MW, making the hard challenges look easy. On the energy frontier we have passed the 10 TeV (c.o.m.) energy for protons and the 1 PeV for ions. This wouldn't have been possible without extensive study of the beam dynamics, halo production mechanisms, developments in diagnostics devices, loss measurement and activation, and of course the availability of high power targets. Today our community is proposing accelerators with powers above 10 MW, and to make that proposal a reality; we should look at how we made it past the MW threshold and see how to take the next steps. The HB has been and still is the forum to discuss our ideas, cherish our successes together, and share our failures and the lessons we have learned from them.

The HB starts with a day of plenary talks, and the first day ends with a poster session. In the next three days two sessions will be held in parallel, covering Beam Dynamics in Rings (WG-A), Beam Dynamics in Linacs (WG-B), Accelerator Systems (WG-C), Commissioning and Operations (WG-D) and Beam Instruments and Interactions (WG-E). On the last day of the workshop there will be a plenary summary and discussion on parallel sessions and we will end the workshop with a bus tour (optional to participate) to the ESS construction site (WG-E). The program of the HB is set by the International Organizing Committee (IOC), which also selects the plenary speakers and working group conveners. The speakers of the parallel sessions are invited by the working group conveners and are selected from the submitted abstracts. These committees have done an excellent work in setting up the program, and without their help this workshop would have been impossible.

Malmö is the third largest city in Sweden though small compared to many cities in the rest of the world. On the other hand Malmö is home to people from more than 175 nationalities, is an eco-friendly city and one of the greenest cities in Europe.

We very much look forward to your active participation in the workshop. Once again, welcome to Malmö and HB2016.

Mamad Eshraqi
HB2016 Chairman

2 Committees

International Organizing Committee

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Yoshi Mori	(Kyoto University, Japan)	mori@rri.kyoto-u.ac.jp
Yoshishige Yamazaki	(FRIB, USA)	yamazaki@frib.msu.edu

Conveners

WG-A: Beam Dynamics in Rings

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Wolfram Fischer	(BNL, USA)	wfischer@bnl.gov
Yong Ho Chin	(KEK, Japan)	yongho.chin@kek.jp

WG-B: Beam Dynamics in Linacs

Alessandra Lombardi	(CERN, Switzerland)	alessandra.lombardi@cern.ch
Masanori Ikegami	(FRIB, USA)	ikegami@frib.msu.edu
Yuan He	(IMP, China)	hey@impcas.ac.cn

WG-C: Accelerator Systems

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Luc Perrot	(IN2P3, France)	perrot@ipno.in2p3.fr

WG-D: Commissioning and Operations

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WG-E: Instrumentation and Beam Interactions

Michiko Minty	(BNL, USA)	minty@bnl.gov
Hee Seock Lee	(Postech, Korea)	lee@postech.ac.kr
Tom Shea	(ESS, Sweden)	thomas.shea@esss.se

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Editorial Team

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Michaela Marx	(DESY, Germany)
Raphael Mueller	(GSI, Germany)
Johan Olander	(ESS, Sweden)
Volker Schaa	(GSI, Germany)
Garry Trahern	(ESS, Sweden)

3 Useful Information

Official language

The language of the workshop is English.

Time

Sweden time is the Central European Time (GMT+2), current time zone offset during daylight saving time.

Climate

Dress code during the workshop is business casual and casual on the excursion. Contrary to common belief Sweden is not that cold; that is why ESS still needs a cryogenics system! Malmö has a record high temperature of 33.2 °C in July. But to manage the expectations it is good to know that the average is 20 to 23°C and the average low is 14°C. Average precipitation in July is ~ 60 mm, and the abundance of wind turbines around Malmö is a good sign that it is a reasonably windy city. Because of its northern latitude the daylight exceeds 16 hours July.

Currency and Credit Cards

Swedish crown, krona (SEK) is the currency used in Sweden. If you are paying with cash the bill will be rounded to nearest SEK. If you use your credit/debit card exact amount is used. All major credit cards are accepted in shops, taxis and cash machines. Exceptions are some small shops, minor taxi companies and buses. Sometimes American Express cards might not be accepted. Sweden is becoming a cash less society rapidly, please note that there might be stores where no cash is accepted, only payments by cash or credit card. 9.4 SEK = 1 EUR, 8.5 SEK = 1 USD (2015-June to 2016-June (Max+Min)/2)

Emergency Number

112

Public Transport

One cannot purchase public transport tickets on board; the tickets should be bought before boarding. Buses accept neither cash nor credit card payments.

Tipping

Tips in bars and restaurants are already included in the bill. Anything extra is of course appreciated by the personnel. It is not uncommon to round up your bill. All prices in shops are including the value added tax (MOMS in Swedish, which is 25%). Tipping taxi drivers is also a common practice.

Electricity

Type C and type F plugs are used in Sweden, these are the same type which is commonly used in Europe, South America & Asia. They have 2 round pins and almost always are 220 to 240 V at 50 Hz.

Workshop Policies

Disclaimer

The organisers are not liable for damages and/or losses of any kind which may be incurred by the conference delegates or by any other individuals accompanying them, both during the official activities as well as going to/from the conference. Delegates are responsible for their own safety and belongings.

HB2016 Anti-harassment Policy

HB2016 is dedicated to providing a harassment-free experience for everyone. We do not tolerate harassment in any form. Participants violating this rule may be sanctioned or expelled from the workshop without a refund at the discretion of the conference organisers. Harassment includes:

- offensive verbal comments related, but not limited to: gender, gender identity and expression, sexual orientation, disability, physical appearance, body size, race, religion;
- sexual images in public spaces;
- deliberate intimidation, stalking, following, harassing photography or recording;
- sustained disruption of talks or other events;
- inappropriate physical contact, and unwelcome sexual attention.

Participants asked to stop any harassing behaviour are expected to comply immediately.

Exhibitors in the Industrial Exhibition are also subject to the anti-harassment policy. In particular, exhibitors should not use sexualised images, activities, or other material. Booth staff (including volunteers) should not use sexualised clothing/uniforms/costumes, or otherwise create a sexualised environment.

If a participant engages in harassing behaviour, the workshop organisers may take any action they deem appropriate, including warning the offender or expulsion from the conference with no refund. If you are being harassed, notice that someone else is being harassed, or have any other concerns, please contact a member of organising staff immediately. Organising staff will be happy to help participants contact hotel/venue security or local law enforcement, provide escorts, or otherwise assist those experiencing harassment to feel safe for the duration of the conference. We value your attendance. We expect participants to follow these rules at all workshop venues and related social events.

Conference Venue

The conference will take place at Scandic Triangeln Hotel in the heart of Malmö.

The public transport stop as well as the train station with the same name (Triangeln) are in close proximity to the hotel.

Hotel coordinates:

Address: Triangeln 2, 21143 Malmö, Sweden.

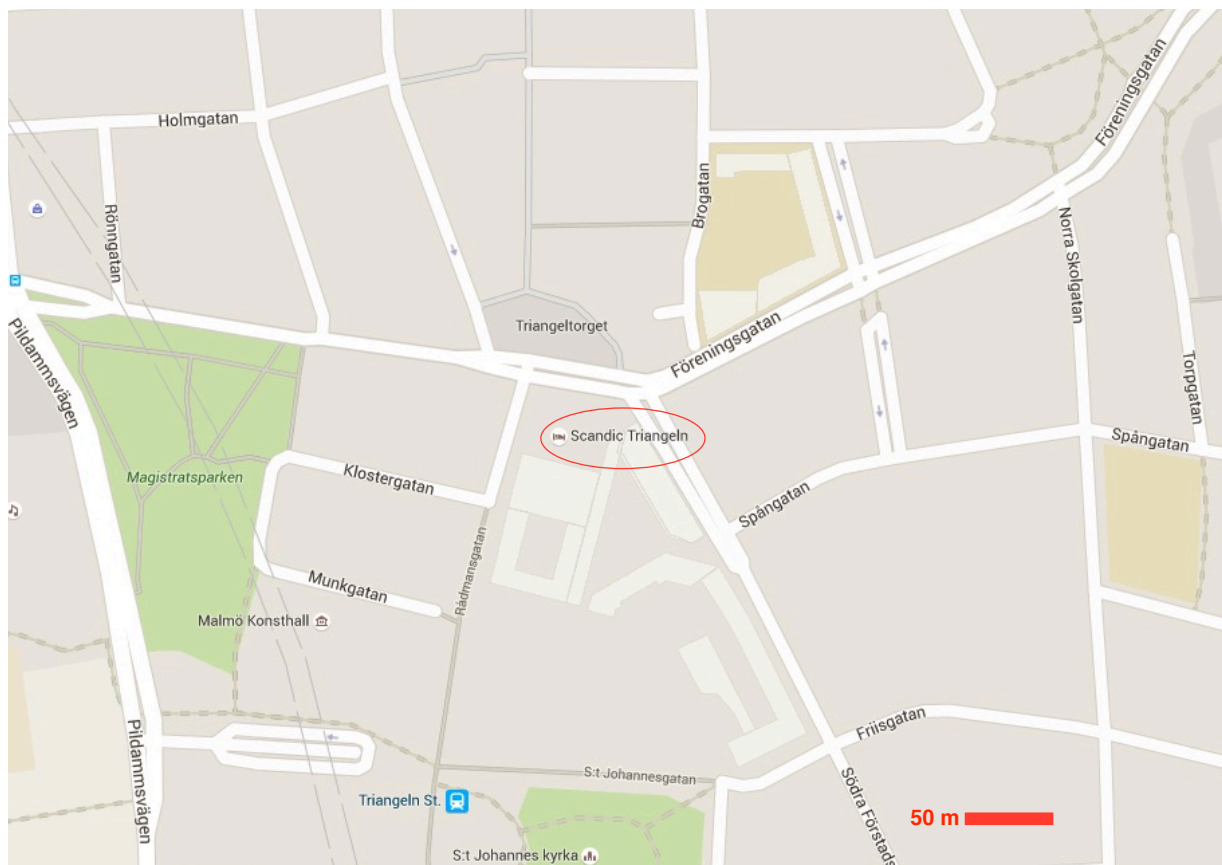
Phone: +46 40 693 47 00

Fax: +46 40 693 47 11

E-mail: triangeln@scandichotels.com.

GPS coordinates:

55°35'47.3"N 13°00'05.5"E



Registration

Registration will be at the conference venue, 3rd floor, on Sunday July 3 from 16:00 - 20:00. Registration will also be possible on Monday July 4 from 8:00.

Social Events

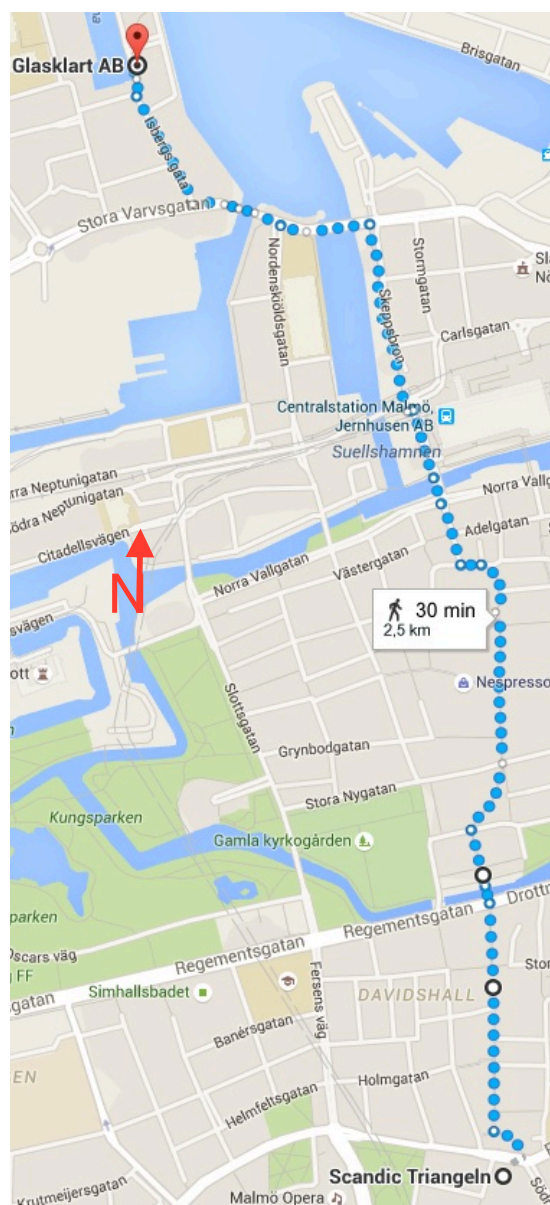
Reception

Sunday July 3: Welcome Reception in the evening at the Workshop Hotel Scandic Hotel Triangeln, 3rd floor, from 18:00.

Conference Dinner

Thursday July 7: Conference Dinner will be hosted in the evening of Thursday, from 19:00 at the GLVSKLVRT (<http://glasklart.eu/en/>).

The dinner is co-hosted by Region Skåne. The venue is in the harbour area of Malmö (Dockplatsen 1, 211 19 Malmö), not far from the Central Station. If the weather is nice, it's a good half-hour walk from the Hotel (Scandic Triangeln).



4 Sponsors and Exhibitors

We would like to thank the following sponsors and exhibitors for supporting HB2016, without whose support HB2016 would not be possible.



EuCARD-2 is an Integrating Activity Project for coordinated Research and Development on Particle Accelerators, co-funded by the European Commission under the FP7 Capacities Programme. This project will contribute to positioning European accelerator infrastructures at the forefront of global research.

The project has 40 partners from 15 European countries, including Russia. The list of partners include 10 accelerator laboratories, 23 technology institutes/universities, 5 scientific research institutes and 2 industrial partners. To read more about EuCARD2 please visit:

<http://eucard2.web.cern.ch/>.



REGION SKÅNE

Skåne region Region Skåne is the County Council of Scania County in Sweden. The county council assembly is the highest political body in the region and its members are elected by the Scanians themselves.

The regional council's main responsibility is for the public healthcare system, public transport and development within the region, which includes co-ordination of development of commerce, communication, culture and collaboration with other regions both in and outside of Sweden. To read more about Skåne region please visit: <http://www.skane.se/en>.

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Beckhoff implements open automation systems based on PC Control Technology. The product range covers Industrial PCs, I/O and Fieldbus Components, Drive Technology and Automation Software. All fueled by a steady stream of innovations.

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Booth No. 1.

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Virtual Exhibitor.

<http://danfysik.dk/>



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<http://www.exirbroadcasting.com/>



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Booth No. 3.

<http://www.fug-elektronik.de/en/>



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Booth No. 5.

<http://www.ocem.eu/>



We are there when the big discoveries are made, powering the worlds most powerful particle accelerators at CERN and other leading research centers. We are there when cancer is treated, providing stable, high-precision particle beams in radiotherapy to clinics all over the world. And we are there when innovative entrepreneurs seek robust pulsed-power solutions to revolutionize industries like cargo scanning and non-destructive testing.

Booth No. 6.

<http://www.scandinovasystems.com/>



Scanditronix Magnet uses experience and professional engineering know-how to design and manufacture magnets for accelerators. A recent project was the manufacture and field mapping of 80 magnet segments for MAX IV in Lund, Sweden.

Virtual Exhibitor.

<http://www.scanditronix-magnet.se/>

5 Author Information

Please find the plan layout in the next page.

Poster Instructions

A Poster session is scheduled for Monday afternoon. An ISO A0 sized poster (840x1188 mm) will fit standing on the board. Posters must be mounted Monday morning and must be removed at the end of the session. Mounting material will be provided.

Poster Rules

Since no contributions are accepted for publication only, any paper not presented at the conference will be excluded from the proceedings. Furthermore, the organizers reserve the right to reject publication of papers that were not properly presented in the poster session. Manuscripts of contributions to the proceedings (or large printouts of them) are not considered as posters and papers presented in this way will not be accepted for publication. There will be a designated “poster police” to verify that posters have been displayed during the relevant poster session and posters should be manned for approximately one hour at least, allowing time for delegates to visit other posters. Papers for posters that are not displayed for the full poster session will not be published in the proceedings.

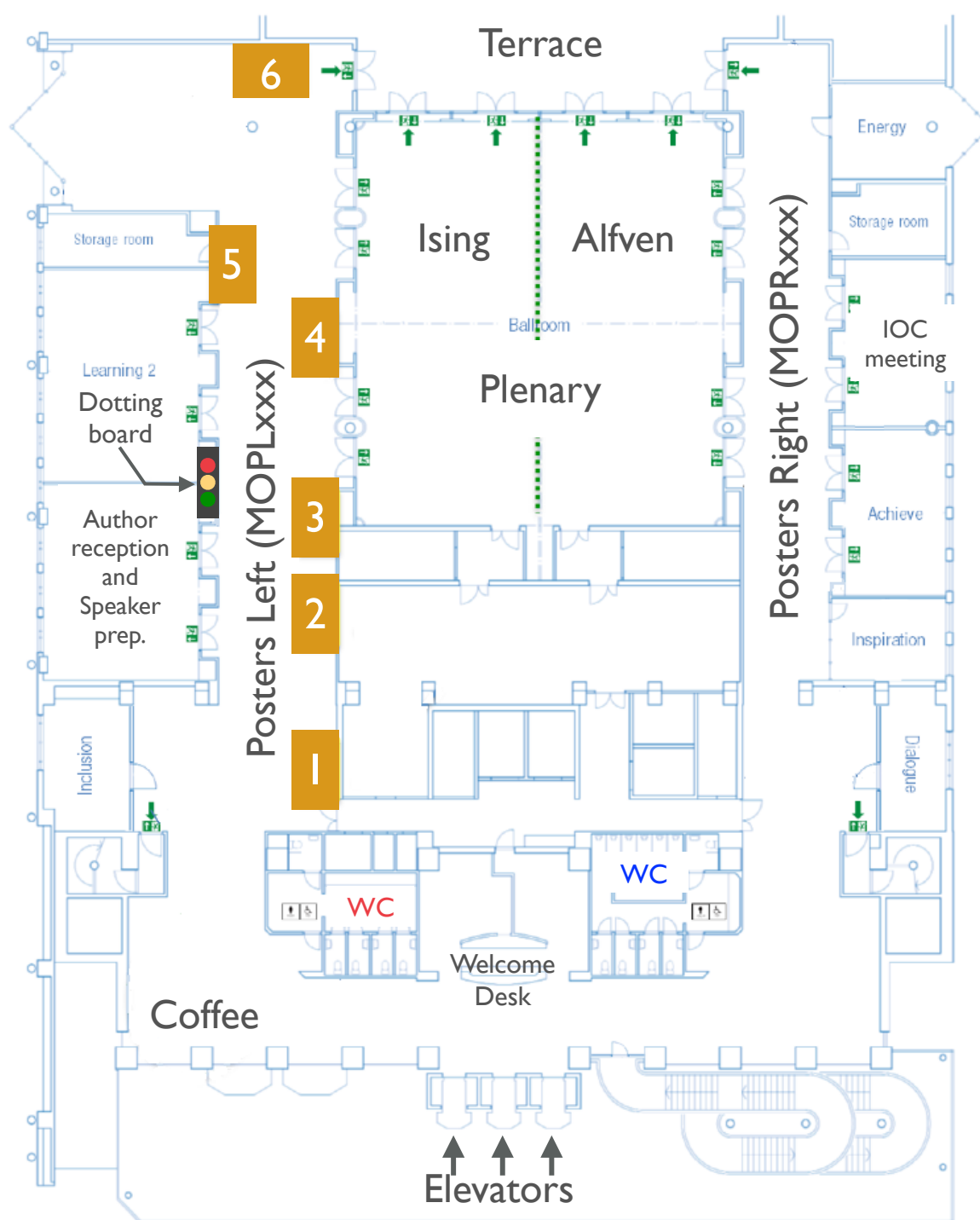
Conference Proceedings

Paper Submission

Authors will be kept updated on the status of their uploaded papers either by checking the status screen at the Workshop or by logging in to their HB2016 SPMS account. Color codes will be used to indicate the current editor status of papers. Note that, before the paper is completely ready to be published in the Proceedings, the author must have a green indication by an Editor. If the paper is being presented as a poster, it must also be additionally approved by the Poster Session Manager.

Paper acceptance

- The paper has adhered to the template and format guidance, and is ready to be published in the Proceedings.
- Changes have been made to the paper. The author must contact the proceedings office at the Conference so that the modified version can be proof-read.
- There is a major problem with the paper, such as one of the source files being corrupt. The author must contact the proceedings office to arrange to see an Editor to correct this.



Exhibitors:

1: CPPII, 2: EXIR, 3: FuG, 4: Beckhoff, 5: OECM, 6: Scandinova

Virtual Exhibitors:

Danfysik, SCANDITRONIX

Scandic
TRIANGELN

6 List of Abstracts

Plenary Session, Monday, 2016 July 4, 9:00-12:40

MOAM1P01 **Welcome**

Mohammad Eshraqi (ESS, Lund)

MOAM2P20 **The LINAC4 project**

Alessandra Maria Lombardi (CERN, Geneva)

MOAM3P30 **The ESS Project**

Håkan Danared (ESS, Lund)

MOAM4P40 **A Fifteen Year Perspective on the Design and Performance of the SNS Accelerator**

Sarah M. Cousineau (ORNL, Oak Ridge, Tennessee)

MOAM5P50 **LHC Run 2: Results and Challenges**

Roderik Bruce (CERN, Geneva)

MOAM6P60 **Recent Progress of J-PARC MR Beam Commissioning and Operation**

Susumu Igarashi (KEK, Ibaraki)

MOAM7P70 **Fermilab PIP-II Status and Strategy**

Shekhar Mishra, Paul Derwent, Stephen Holmes, Valeri Lebedev, Donald Mitchell (Fermilab, Batavia, Illinois)

Plenary Session, Monday, 2016 July 4, 14:00-18:00

MOPM1P80 **Accelerator Physics Challenges in FRIB Driver Linac**

Masanori Ikegami (FRIB, East Lansing, Michigan)

MOPM2P90 **Status and Challenges of High Intensity Heavy Ion Accelerator Facility (HIAF) in China**

Jiancheng Yang, Jia Wen Xia, Guo Qing Xiao, Hushan Xu, Youjin Yuan, Hongwei Zhao, Xiaohong Zhou (IMP/CAS, Lanzhou)

Beam Dynamics in Linacs, Monday, 2016 July 4, 14:00-18:00

MOPM3P01 **Beam Optics Simulations of the Pre-Stripper Linac for Rare Isotope Science Project**

Jong-Won Kim, Ji-Ho Jang, Hyunchang Jin (IBS, Daejeon), Zachary Alan Conway, Brahim Mustapha, Peter Ostroumov (ANL, Argonne, Illinois)

Plenary Session, Monday, 2016 July 4, 14:00-18:00

MOPM4P01 **Challenges and Performance of the C-ADS Injector System**

Yunlong Chi (IHEP, Beijing)

Accelerator Systems, Monday, 2016 July 4, 14:00-18:00

- MOPR001 **Figure-8 Storage Ring Ũ Investigation of the Scaled Down Injection System**
Heiko Niebuhr, Adem Ates, Martin Droba, Oliver Meusel, Daniel Noll, Ulrich Ratzinger, Joschka Felix Wagner (IAP, Frankfurt am Main)
- MOPR002 **Study of the magnet measurements during the injection region for CSNS/RCS**
Ming-Yang Huang, Nan Huang, Lihua Huo, Hongfei Ji, Wen Kang, Yiqin Liu, Jun Peng, Jing Qiu, Li Shen, Sheng Wang, Shou Yan Xu, Jing Zhang (IHEP, Beijing)
- MOPR003 **HOM Analysis of A HWR Cavity for 100 mA Proton Acceleration**
Feng Zhu, Peiliang Fan, Kexin Liu, Shengwen Quan, Hutianxiang Zhong (PKU, Beijing)
- MOPR004 **H- Charge Exchange Injection for XiPAF Synchrotron**
Hongjuan Yao, Xialing Guan, Guangrui Li, Xuewu Wang, Qingzi Xing, Shu-xin Zheng (TUB, Beijing)
- MOPR005 **RF-Knockout Slow Extraction Design for XiPAF Synchrotron**
Hongjuan Yao, Xialing Guan, Guangrui Li, Xuewu Wang, Qi Zhang, Shu-xin Zheng (TUB, Beijing)
- MOPR006 **Design of the 230MeV Proton Accelerator for Xian Proton Application Facility**
Hongjuan Yao, Huaibi Chen, Cheng Cheng, Changtong Du, Lei Du, Taibin Du, Xialing Guan, Wenhui Huang, Hongping Jiang, Guangrui Li, Chuanxiang Tang, Ruo Tang, Dan wang, Minwen Wang, Xuewu Wang, Lin Wu, Qingzi Xing, Ye Yang, Zheng Yang, hong-jin zeng, Huayi Zhang, Qi Zhang, Qingzhu Zhang, Shu-xin Zheng (TUB, Beijing), Mengtong Qiu, Baichuan Wang, Yan-Ping wang, Zhongming Wang, Yi-Hua Yan, Hui Zhang, Chen Zhao (State Key Laboratory of Intense Pulsed Radiation Simulation and Effect, Shannxi)
- MOPR007 **Cool and High Power Test of Large Size Magnetic Alloy Core for Xipaf's Synchrotron**
Guangrui Li, Xialing Guan, Xuewu Wang, Zheng Yang, Hongjuan Yao, hong-jin zeng, Shu-xin Zheng (TUB, Beijing)
- MOPR008 **Dynamic vacuum simulation in the CSRm**
Peng Li, Zhen Chai, Cheng Luo, Ruishi Mao, Jun Meng, Jiachen Wang, Jiancheng Yang, Youjin Yuan, Wenheng Zheng (IMP/CAS, Lanzhou)
- MOPR009 **Transverse Beam Splitting Made Operational: Recent Progress of the Multi-Turn Extraction at the CERN Proton Synchrotron**
Alexander Huschauer, Jan Borburgh, Sanja Damjanovic, Simone Silvano Gilardoni, Massimo Giovannozzi, Michael Hourican, Karsten Kahle, Gilles Le Godec, Olivier Michels, Guido Sterbini (CERN, Geneva), Cédric Hermalsteens (EPFL, Lausanne)
- MOPR010 **Machine Element Contribution to the Longitudinal Impedance Model of the CERN SPS**
Thomas Kaltenbacher, Fritz Caspers, Christine Vollinger (CERN, Geneva)
- MOPR011 **The SPS 200 MHz TWC Impedance after the LIU Upgrade**
Toon Roggen, Rama Calaga, Fritz Caspers, Thomas Kaltenbacher, Christine Vollinger (CERN, Geneva)
- MOPR012 **The New HL-LHC Injection and Transport Protection System**
Francesco Maria Velotti, Wolfgang Bartmann, Chiara Bracco, Matthew Alexander Fraser, Brennan Goddard, Verena Kain, Anton Lechner, Malika Meddahi (CERN, Geneva)

MOPR013 Analysis and Robust Design of Feedback Systems for Controlling Intra-bunch Instabilities at the SPS (CERN)

Claudio Hector Rivetta, John Fox, Ozhan Turgut (SLAC, Menlo Park, California), Wolfgang Höfle, Kevin Shing Bruce Li (CERN, Geneva)

MOPR014 Corrector Magnets for the Cbeta and eRHIC Projects and Hadron Facilities*

Nicholaos Tsoupas, Stephen Brooks, Yue Hao, Animesh Kumar Jain, George Mahler, Francois Meot, Vadim Ptitsyn, Dejan Trbojevic (BNL, Upton, Long Island, New York)

Beam Dynamics in Rings, Monday, 2016 July 4, 14:00-18:00

MOPR015 Beta-beating Estimates and Corrections at SIS100

Vera Chetvertkova, Oliver Boine-Frankenheim, Youssef El Hayek, Giuliano Franchetti, David Ondreka, Rahul Singh, Kei Sugita (GSI, Darmstadt)

MOPR016 Mitigation of Numerical Noise for Beam Loss Simulations

Frederik Kesting (IAP, Frankfurt am Main), Giuliano Franchetti (GSI, Darmstadt)

Beam Instruments and Interactions, Monday, 2016 July 4, 14:00-18:00

MOPR017 Status of the Beam Instrumentation System of CSNS

Jilei Sun, Jun Peng (CSNS, Guangdong Province), Taoguang Xu (IHEP, Beijing)

Commissioning and Operations, Monday, 2016 July 4, 14:00-18:00

MOPR018 XAL APPLICATIONS DEVELOPMENT FOR CSNS TRANSPORT LINES

Yong Li, Zhiping Li, Weibin Liu (IHEP, Beijing), Jun Peng (CSNS, Guangdong Province)

Beam Dynamics in Rings, Monday, 2016 July 4, 14:00-18:00

MOPR020 SPACE CHARGE EFFECTS OF HIGH INTENSITY BEAMS AT BRING

Jie Li (IMP/CAS, Lanzhou)

MOPR021 Overview of the ESSnuSB Accumulator Ring

Maja Olvegaard, Tord Ekelöf (Uppsala University, Uppsala), Elena Benedetto, Magdalena Cieslak-Kowalska, Michel Martini, Horst Schönauer, Elena Wildner (CERN, Geneva)

MOPR022 Longitudinal Particle Tracking Code for a High Intensity Proton Synchrotron

Masanobu Yamamoto (JAEA/J-PARC, Tokai-Mura, Naka-Gun, Ibaraki-Ken)

MOPR023 Interpretation of Wire-Scanner Asymmetric Profiles in a Low-Energy Ring

Elena Benedetto, Magdalena Cieslak-Kowalska (CERN, Geneva)

MOPR024 General Formula to Deduce the Space Charge Tune Spread From a Quadrupolar Pick-Up Measurement

Elias Métral (CERN, Geneva)

MOPR025 Space Charge Modules for PyHEADTAIL

Adrian Oeftiger (CERN, Geneva), Stefan Heggin (ETH, Zurich)

MOPR026 Space Charge Mitigation With Longitudinally Hollow Bunches

Adrian Oeftiger, Steven Hancock, Giovanni Rumolo (CERN, Geneva)

- MOPR027 **Dynamic Beta and Beta-Beating Effects in the Presence of the Beam-Beam Interactions**
Tatiana Pieloni, Xavier Buffat, Rogelio Tomas (CERN, Geneva)
- MOPR028 **CERN PS Booster Longitudinal Dynamics Simulations for the Post-LS2 Scenario**
Danilo Quartullo, Simon Christopher Paul Albright, Elena Shaposhnikova (CERN, Geneva)
- MOPR029 **On the Impact of Non-Symplecticity of Space Charge Solvers**
Malte Titze (CERN, Geneva)
- MOPR030 **Simple Models for Beam Loss Near the Half Integer Resonance with Space Charge**
Christopher Warsop, Dean Adams, Bryan Jones, Ben Graeme Pine (STFC/RAL/ISIS, Chilton, Didcot, Oxon)
- MOPR031 **Development of Physics Models of the ISIS Head-Tail Instability**
Robert Williamson, Bryan Jones, Christopher Warsop (STFC/RAL/ISIS, Chilton, Didcot, Oxon)
- MOPR033 **Beam Acceleration and Transition Crossing in the Fermilab Booster**
Valeri Lebedev, Chandra Bhat, Jean-Francois Ostiguy (Fermilab, Batavia, Illinois)
- MOPR034 **Suppression of Half-Integer Resonance in Fermilab Booster**
Valeri Lebedev, Alexander Valishev (Fermilab, Batavia, Illinois)
- MOPR035 **Electron Lens for the Fermilab Integrable Optics Test Accelerator**
Giulio Stancari (Fermilab, Batavia, Illinois)
- MOPR036 **Spin Tracking of Polarized Protons in the Main Injector at Fermilab**
Meiqin Xiao (Fermilab, Batavia, Illinois), Callum Aldred, Wolfgang Lorenzon (Michigan University, Ann Arbor, Michigan)
- MOPR037 **Space Charge Effects on Ion Beam Dynamics and Integrability in the Iota Ring**
Nathan M. Cook, David Leslie Bruhwiler, Christopher Hall, Rami Alfred Kishek, Stephen Davis Webb (RadiaSoft LLC, Boulder, Colorado), Alexander Leonidovich Romanov, Alexander Valishev (Fermilab, Batavia, Illinois)
- MOPR038 **Nonlinear Dynamics and Paths to Integrability in the IOTA Lattice**
Nathan M. Cook, David Leslie Bruhwiler, Christopher Hall, Rami Alfred Kishek, Stephen Davis Webb (RadiaSoft LLC, Boulder, Colorado), Alexander Leonidovich Romanov, Alexander Valishev (Fermilab, Batavia, Illinois)
- MOPR039 **Survey of Variational Algorithms for Modeling Intense Beams**
Stephen Davis Webb (RadiaSoft LLC, Boulder, Colorado)
- MOPR040 **A Single-Turn Map Formalism for Collective Effects**
Stephen Davis Webb (RadiaSoft LLC, Boulder, Colorado)

Beam Dynamics in Linacs, Monday, 2016 July 4, 14:00-18:00

- MOPL001 **Instability in the nonlinear envelope dynamics of a bunched beam**
Thales Marques Correa da Silva, Renato Pakter, Felipe Barbedo Rizzato (IF-UFRGS, Porto Alegre)
- MOPL002 **THE DESIR FACILITY AT GANIL-SPIRAL2: THE TRANSFER BEAM LINES**
Luc Perrot, Philippe Blache, Sébastien Rousselot (IPN, Orsay)

- MOPL003 **Status of the Beam Dynamics Design of the New Post-Stripper DTL for GSI-FAIR**
Anna Rubin, David Daehn, Xiaonan Du, Lars Groening, Michael Kaiser, Sascha Mickat (GSI, Darmstadt)
- MOPL004 **Beam Dynamics Simulation and Code Comparison for New CW RFQ Design**
Sergey Markovich Polozov (MEPhI, Moscow), Winfried A. Barth (GSI, Darmstadt; HIM, Mainz; MEPhI, Moscow), Stepan Yaramyshev (GSI, Darmstadt; MEPhI, Moscow), Timur Kulevoy (ITEP, Moscow; MEPhI, Moscow)
- MOPL005 **Simulation study of beam dynamics on linac for CSNS during commissioning**
Yue Yuan, Hongfei Ji, Sheng Wang (IHEP, Beijing), Jun Peng (CSNS, Guangdong Province)
- MOPL006 **Beam Dynamics Study of C-ADS Injector-I With Developed P-TOPO Code**
Zhicong Liu (IHEP, Beijing)
- MOPL007 **Beam Steering Studies for the Superconducting Linac of the RAON Accelerator**
Hyunchang Jin, Ji-Ho Jang, Dong-O Jeon (IBS, Daejeon)
- MOPL009 **Analytical Approach for Achromatic Structure Study and Design**
Helen Barminova (MEPhI, Moscow), Alexander Sergeevich Chikhachev (Allrussian Electrotechnical Institute, Moscow)
- Beam Instruments and Interactions, Monday, 2016 July 4, 14:00-18:00**
- MOPL010 **ESSnuSB Project to Produce Intense Beams of Neutrinos and Muons**
Eliau Bouquerel (IPHC, Strasbourg Cedex 2)
- MOPL011 **Laser Stripping H- Charge Exchange Injection by Femtosecond Lasers**
Timofey Gorlov (ORNL, Oak Ridge, Tennessee)
- MOPL012 **Residual Dose Measurement and Activation of the Injection Area in the J-PARC RCS**
Masahiro Yoshimoto, Hideaki Hotchi, Shinichi Kato, Michikazu Kinsho, Kota Okabe (JAEA/J-PARC, Tokai-Mura, Naka-Gun, Ibaraki-Ken)
- MOPL013 **The Charge Exchange Type Beam Halo Scraper at the J-PARC L3BT**
Kota Okabe, Kazami Yamamoto (JAEA/J-PARC, Tokai-mura), Shinichi Kato (JAEA/J-PARC, Tokai-Mura, Naka-Gun, Ibaraki-Ken)
- MOPL015 **Effect of Beam Losses on Wire Scanner Scintillator Readout, Hypothesis and Preliminary Results**
Benjamin Cheymol (ESS, Lund)
- MOPL016 **Effects of Energy Deposition Models and Conductive Cooling on Wire Scanner Thermal Load, Analytical and Finite Element Analysis Approach**
Benjamin Cheymol (ESS, Lund)
- MOPL017 **High Power and High Duty Cycle Slit and Grid System for Hadron Accelerator Commissioning**
Benjamin Cheymol, Aurélien Ponton (ESS, Lund)
- MOPL018 **Scintillator Detectors for the ESS High Energy Wire Scanner**
Benjamin Cheymol (ESS, Lund)
- MOPL019 **Results From First Crystal Collimation Tests at the Large Hadron Collider**
Stefano Redaelli, Daniele Mirarchi, Roberto Rossi, Walter Scandale (CERN, Geneva)

MOPL020 **Online Measurement of the Energy Spread of Multi-turn Beam in the Fermilab Booster at Injection**

Chandra Bhat, Brian Scott Hendricks (Fermilab, Batavia, Illinois), Jovan Nelson (Brown University, Providence)

Beam Dynamics in Rings, Monday, 2016 July 4, 14:00-18:00

MOPL021 **Fermilab Booster Transition Simulations and Beam Studies**

Chandra Bhat, Cheng-Yang Tan (Fermilab, Batavia, Illinois)

MOPL024 **MAGNET SORTING FOR THE CSNS/RCS USING FIELD MEASUREMENT DATA***

Yuwen An, Hongfei Ji, Yong Li, Sheng Wang, Shou Yan Xu (IHEP, Beijing), Jun Peng (CSNS, Guangdong Province)

Commissioning and Operations, Monday, 2016 July 4, 14:00-18:00

MOPL025 **Transient Beam Loading Based Calibration for Cavity Phase and Amplitude Setting**

Rihua Zeng (ESS, Lund), Olof Troeng (Lund University, Lund)

Beam Dynamics in Rings, Tuesday, 2016 July 5, 9:00-12:40

TUAM1X01 **A Two Particle Model for Study of Effects of Space-Charge Force on Strong Head-Tail Instabilities.**

Yong Ho Chin (KEK, Ibaraki), Michael Blaskiewicz (BNL, Upton, Long Island, New York), Yoshihiro Shobuda (JAEA/J-PARC, Tokai-Mura, Naka-Gun, Ibaraki-Ken), Alex Chao (SLAC, Menlo Park, California)

TUAM2X01 **Measurement and Interpretation of Transverse Beam Instabilities in the CERN Large Hadron Collider (LHC) and Extrapolations to HL-LHC**

Elias Métral, Gianluigi Arduini, Nicolo Biancacci, Xavier Buffat, Lee Robert Carver, Giovanni Iadarola, Kevin Shing Bruce Li, Tatiana Pieloni, Annalisa Romano, Giovanni Rumolo, Benoît Salvant, Michael Schenk, Claudia Tambasco (CERN, Geneva), Javier Barranco (EPFL, Lausanne)

TUAM3X01 **Identification and Reduction of the CERN SPS Impedance**

Elena Shaposhnikova (CERN, Geneva)

TUAM4X01 **Electron Cloud Effects in the CERN Accelerator Complex**

Giovanni Rumolo (CERN, Geneva)

TUAM5X01 **Space Charge Driven Beam Loss for Cooled Beams and Possible Mitigation Measures in the CERN Low Energy Ion Ring**

Hannes Bartosik, Steven Hancock, Alexander Huschauer, Verena Kain (CERN, Geneva)

TUAM6X01 **Space Charge Effects on the Third Order Coupled Resonance**

Giuliano Franchetti (GSI, Darmstadt)

TUAM7X01 **Intensity Effects in the Formation of Stable Islands in Phase Space During the Multi-Turn Extraction Process at the CERN Ps**

Shinji Machida (STFC/RAL/ASTeC, Chilton, Didcot, Oxon), Simone Silvano Gilardoni, Massimo Giovannozzi, Alexander Huschauer (CERN, Geneva), Christopher Prior (STFC/RAL/ISIS, Chilton, Didcot, Oxon)

TUAM8X01 Beam-Beam Effects in the Large Hadron Collider*Tatiana Pieloni (CERN, Geneva)***Accelerator Systems, Tuesday, 2016 July 5, 14:00-18:00****TUPM1X01 Broadband Feedback System for Instability Damping in the SNS Ring***Nicholas John Evans (ORNL RAD, Oak Ridge, Tennessee)***TUPM2X01 Heavy Ion Charge Stripping at FRIB***Felix Marti, Paul Guetschow (FRIB, East Lansing, Michigan), Yoichi Momozaki, Claude Reed (ANL, Argonne, Illinois), Jerry Nolen (ANL, Argonne, Illinois; FRIB, East Lansing, Michigan), Ady Hershcovitch, Peter Thieberger (BNL, Upton, Long Island, New York), Michael LaVere (MSU, East Lansing, Michigan)***TUPM3X01 R&D on Beam Injection and Bunching Schemes in the Fermilab Booster***Chandra Bhat (Fermilab, Batavia, Illinois)***TUPM4X01 LHC Injectors Upgrade for the HL-LHC***Chiara Bracco, Julie Coupard, Heiko Damerau, Anne Funken, Brennan Goddard, Klaus Hanke, Alessandra Maria Lombardi, Django Manglunki, Simon Mataguez, Malika Meddahi, Bettina Mikulec, Giovanni Rumolo, Richard Scrivens, Elena Shaposhnikova, Maurizio Vretenar (CERN, Geneva)***TUPM5X01 Injecting Painting Improvements in the J-PARC RCS***Shinichi Kato, Norimitsu Tobita (JAEA/J-PARC, Tokai-Mura, Naka-Gun, Ibaraki-Ken), Hideo Harada (JAEA, Ibaraki-ken), Koki Horino, Hideaki Hotchi, Michikazu Kinsho, Kota Okabe, Pranab Kumar Saha, Tomohiro Takayanagi, Tomoaki Ueno (JAEA/J-PARC, Tokai-mura)***TUPM6X01 H- Charge Exchange Injection Issues at High Power***Michael Plum (ORNL, Oak Ridge, Tennessee)***TUPM7X01 An Experimental plan for 400 MeV H- Stripping to Protons by using only Laser system in the J-PARC RCS***Pranab Kumar Saha, Hiroyuki Harada, Shinichi Kato, Michikazu Kinsho (JAEA/J-PARC, Tokai-Mura, Naka-Gun, Ibaraki-Ken), Yoshiro Irie, Isao Yamane (KEK, Ibaraki)***TUPM8X01 First results of laser-assisted H- stripping of a 10 us, 1 GeV beam at the SNS accelerator***Sarah M. Cousineau (ORNL, Oak Ridge, Tennessee)***Beam Dynamics in Linacs, Tuesday, 2016 July 5, 9:00-12:40****TUAM1Y01 SARAF Phase-I Experience with mA Beams***Dan Berkovits (Soreq NRC, Yavne)***TUAM2Y01 Beam Dynamics Challenges in IFMIF***Nicolas Chauvin, Phu Anh Phi Nghiem, Didier Uriot (CEA/IRFU, Gif-sur-Yvette), Concepcion Oliver (CIEMAT, Madrid), Michele Comunian (INFN/LNL, Legnaro (PD))***TUAM3Y01 Beam Dynamics Challenges in the ESS Linac***Yngve Inntjore Levinsen, Renato De Prisco, Mohammad Eshraqi, Ryoichi Miyamoto (ESS, Lund)***TUAM4Y01 Instability Investigation of the China ADS Injector-I Testing Facility***Fang Yan (IHEP, Beijing)*

TUAM5Y01 Beam Simulation Studies for FRIB*Qiang Zhao (FRIB, East Lansing, Michigan)***TUAM6Y01 Experimental Investigation of Emittance Exchange in J-PARC Linac With Non-Equipartitioning Setting***Yong Liu (KEK/JAEA, Ibaraki-Ken), Masanori Ikegami (FRIB, East Lansing, Michigan), Tomofumi Maruta (J-PARC, KEK & JAEA, Ibaraki-ken), Akihiko Miura (JAEA/J-PARC, Tokai-mura), Tomoaki Miyao (KEK, Ibaraki), Ciprian Plostinar (STFC/RAL/ASTeC, Chilton, Didcot, Oxon)***TUAM7Y11 High Current Uranium Beam Measurements at GSI UNILAC for FAIR***Winfried A. Barth, Aleksey Adonin, Manuel Heilmann, Ralph Hollinger, Egon Jaeger, Oliver Karl Kester, Joerg Krier, Evgenij Plechov, Wolfgang Vinzenz, Hartmut Vormann (GSI, Darmstadt), Jadambaa Khuyagbaatar, Alexander Yakushev (GSI, Darmstadt; HIM, Mainz), Christoph Emanuel Duellmann (GSI, Darmstadt; HIM, Mainz; Johannes Gutenberg University Mainz, Mainz), Paul Scharrer (GSI, Darmstadt; HIM, Mainz; Mainz University, Mainz), Stepan Yarmyshev (GSI, Darmstadt; MEPhI, Moscow)***Commissioning and Operations, Tuesday, 2016 July 5, 14:00-18:00****TUPM1Y01 Advances in the Development of the ESS-Bilbao Proton Injector***Zunbeltz Izaola, Ibon Bustinduy, Carlos de la Cruz, Giles Harper, Rosalba Miracoli, Juan Luis Munoz, Igor Rueda (ESS Bilbao, Zamudio), Javier Corres, Aitor Zugazaga (ESS Bilbao, Derio), David de Cos, Alvaro Vizcaino (ESS Bilbao, LEIOA)***TUPM2Y01 Beam Commissioning Results for the CSNS MEBT and DTL-1***Jun Peng, mingtao li (CSNS, Guangdong Province), Yuwen An, Shinian Fu, Ming-Yang Huang, Yong Li, Zhiping Li, Yudong Liu, Sheng Wang, Shou Yan Xu, Yue Yuan (IHEP, Beijing)***TUPM3Y01 Operational Experience and Future Plans at ISIS***Dean Adams (STFC/RAL/ASTeC, Chilton, Didcot, Oxon)***TUPM4Y01 IFMIF-EVEDA RFQ, Measurement of Beam Input Conditions and Preparation to Beam Commissioning***Michele Comunian, Enrico Fagotti, Andrea Pisent (INFN/LNL, Legnaro (PD)), Luca Bellan (INFN/LNL, Legnaro (PD); Univ. degli Studi di Padova, Padova)***TUPM5Y01 ESS Linac Plans for Commissioning and Initial Operations***Ryoichi Miyamoto, Mohammad Eshraqi, Marc Munoz (ESS, Lund)***TUPM6Y01 Commissioning of C-ADS Injector I***Jianshe Cao, Huiping Geng, Rong Liu, Cai Meng, Fang Yan, Qiang Ye (IHEP, Beijing), Yanfeng Sui (IHEP,)***TUPM7Y01 SPIRAL 2 Commissioning Status***Jean-Michel Lagniel (GANIL, Caen)***TUPM8Y01 Lessons of High-power CW Beam Commissioning of Injector II of Chinese ADS***Huan Jia (IMP/CAS, Lanzhou)***Beam Dynamics in Rings, Tuesday, 2016 July 5, 14:00-18:00****TUPM9Y01 Observations of Coupling During Accumulation Using a Non-Destructive Electron Scanner in the Spallation Neutron Source Accumulator Ring***Robert Edward Potts (ORNL RAD, Oak Ridge, Tennessee), Willem Blokland, Sarah M. Cousineau, Jeffrey Alan Holmes (ORNL, Oak Ridge, Tennessee)*

Beam Dynamics in Rings, Wednesday, 2016 July 6, 9:00-12:40

WEAM1X01 **Code Benchmarking for Long-Term Tracking and Adaptive Algorithms**

Frank Schmidt (CERN, Geneva)

WEAM2X01 **PIC Solvers for Intense Beams: Status and Future Prospects**

Oliver Boine-Frankenheim (GSI, Darmstadt)

WEAM3X01 **Code Development for Collective Effects**

Kevin Shing Bruce Li, Hannes Bartosik, Giovanni Iadarola, Andrea Passarelli, Annalisa Romano, Giovanni Rumolo (CERN, Geneva), Adrian Oeftiger, Michael Schenk (CERN, Geneva; EPFL, Lausanne), Stefan Hegglin (ETH, Zurich)

WEAM4X01 **Numerical Modeling of Fast Beam Ion Instabilities**

Lotta Mether, Giovanni Rumolo (CERN, Geneva)

WEAM5X01 **Beam-dynamics Issues in the FCC**

Frank Zimmermann (CERN, Geneva)

WEAM6X01 **Studies of High Intensity Proton FFAGs at RAL**

Christopher Prior (STFC/RAL/ISIS, Chilton, Didcot, Oxon)

WEAM7X01 **Nonlinear Focusing in IOTA for Space-Charge Compensation and Landau Damping**

Sergei Nagaitsev (Fermilab, Batavia, Illinois)

WEAM8X01 **Two-plane Painting Injection in BRing of HIAF Project**

Weiping Chai (IMP/CAS, Lanzhou)

Beam Instruments and Interactions, Wednesday, 2016 July 6, 14:00-18:00

WEPM1X01 **Performance of Linac-4 Instrumentation during Commissioning**

Uli Raich (CERN, Geneva)

WEPM2X01 **High Power Target Instrumentation at J-PARC for Neutron and Muon Sources**

Shin-ichiro Meigo, Masaaki Nishikawa (JAEA/J-PARC, Tokai-Mura, Naka-Gun, Ibaraki-Ken), Tomoyuki Kawasaki, Motoki Ooi (JAEA/J-PARC, Tokai-mura), Hiroshi Fujimori, Shin-pei Fukuta (KEK/JAEA, Ibaraki-Ken)

WEPM3X01 **Developments in High-Precision Fast Wire Scanners for High Intensity Proton Accelerators**

Bernd Dehning (CERN, Geneva)

WEPM5X01 **LHC Collimation for the Run II and Beyond**

Stefano Redaelli (CERN, Geneva)

WEPM6X01 **Beam Halo Collimation Over Wide Range Charge-to-Mass Ratio**

Ivan Strasik (GSI, Darmstadt), Oliver Boine-Frankenheim (GSI, Darmstadt; TEMF, TU Darmstadt, Darmstadt)

WEPM7X01 **The Application of the Optimization Algorithm in the Collimation System for CSNS/RCS**

Hongfei Ji, Ming-Yang Huang, Yi Jiao, Na Wang, Sheng Wang, Shou Yan Xu (IHEP, Beijing)

WEPM8X01 Collimation Design and Beam Loss Detection at FRIB

Zhengzheng Liu, Masanori Ikegami, Steven Michael Lidia, Felix Marti (FRIB, East Lansing, Michigan), Vera Chetvertkova (GSI, Darmstadt), Tomofumi Maruta (KEK/JAEA, Ibaraki-Ken)

Accelerator Systems, Wednesday, 2016 July 6, 9:00-12:40**WEAM1Y01 A coupled RFQ-IH-DTL Cavity for FRANZ: A Challenge for RF Technology and Beam Dynamics**

Rudolf Tiede, Oliver Meusel, Holger Podlech, Ulrich Ratzinger, Alwin Schempp, Malte Schwarz, Christoph Wiesner [on leave] (IAP, Frankfurt am Main), Dominik Mäder (BEVATECH, Frankfurt), Manuel Heilmann (GSI, Darmstadt)

WEAM2Y01 Overview of the CSNS Linac LLRF and Operational Experiences During Beam Commissioning

Zhencheng Mu (IHEP, Beijing), Jian Li, Mei Fei Liu, Lin Yan Rong, Ma Liang Wan, Bo Wang, Zhe Xin Xie, Xin An Xu, Yuan Yao, Zonghua Zhang, Wenzhong Zhou (CSNS, Guangdong Province)

WEAM3Y01 Present Status of the High Current Linac at Tsinghua University and Its Applications

Qingzi Xing, Du Tai Bin, Cheng Cheng, Changtong Du, Lei Du, Xialing Guan, Chuanxiang Tang, Ruo Tang, Xuewu Wang, Huayi Zhang, Qingzhu Zhang, Shu-xin Zheng (TUB, Beijing), Weiqiang Guan, Yu He, Jian Li (NUCTECH, Beijing)

WEAM4Y01 Design and prototyping of the Spoke Cyromodule for ESS

Patxi Duthil, Sébastien Bousson, Sylvain Brault, Patricia Duchesne, Nicolas Gandolfo, Guillaume Olry, Matthieu Pierens, Emmanuel Rampnoux, Denis Reynet (IPN, Orsay), Christine Darve (ESS, Lund)

WEAM5Y01 Study of Analyzing and Matching of Mixed High Intensity Highly Charged Heavy Ion Beams

Xiaohu Zhang, Liangting Sun, Yao Yang, Xuejun Yin, Youjin Yuan, Hongwei Zhao (IMP/CAS, Lanzhou)

WEAM6Y01 R&D on Crab Cavities for the HL-LHC

Rama Calaga (CERN, Geneva)

WEAM7Y01 The Beam Delivery System of the European Spallation Source

Heine Dørlath Thomsen (Aarhus University, Aarhus), Søren Pape Møller (ISA, Aarhus)

Beam Dynamics in Linacs, Wednesday, 2016 July 6, 14:00-18:00**WEPM1Y01 Emittance Reconstruction Techniques in Presence of Space Charge Applied During the Linac4 Beam Commissioning**

Veliko Atanasov Dimov, Jean-Baptiste Lallement, Alessandra Maria Lombardi (CERN, Geneva), Rahul Gaur (RRCAT, Indore)

WEPM2Y01 Model Benchmark With Experiment at SNS Linac

Andrei P. Shishlo, Alexander V. Aleksandrov, Michael Plum (ORNL, Oak Ridge, Tennessee), Yun Liu (ORNL RAD, Oak Ridge, Tennessee)

WEPM3Y01 Efficient Particle In Cell Simulations of Beam Collimation in the FRIB Front-End

Steven Mocko Lund, Kei Fukushima (FRIB, East Lansing, Michigan), Chun Yan Jonathan Wong (NSCL, East Lansing, Michigan)

WEPM4Y01 HPSim - Advanced Online Modeling for Proton Linacs*Lawrence Rybarczyk (LANL, Los Alamos, New Mexico)***WEPM5Y01 H- Beam Dynamics Study of a LEBT in XiPAF Project with the WARP PIC Code***Tang Ruo, Lei Du, Taibin Du, Xialing Guan, Chuanxiang Tang, Xuewu Wang, Qingzi Xing, Huayi Zhang, Qingzhu Zhang (TUB, Beijing), Weiqiang Guan, Yu He, Jian Li (NUCTECH, Beijing)***WEPM6Y01 Study on Space Charge Compensation of Low Energy High Intensity Ion Beam in Peking University***ShiXiang Peng, Zhiyu Guo, Jiamei Wen, Wenbin Wu, Yuan Xu, Jingfeng Zhang, Tao Zhang (PKU, Beijing), Haitao Ren (FRIB, East Lansing, Michigan; PKU, Beijing), Jia-er Chen (Graduate University, Beijing; PKU, Beijing), Ailin Zhang (PKU, Beijing; University of Chinese Academy of Sciences, Beijing)***WEPM7Y01 Transverse Coupling Property of Beam From ECR Ion Sources***Yao Yang (IMP/CAS, Lanzhou)***WEPM8Y01 Simulation of Space-Charge Compensation of a Low-Energy Proton Beam in a Drift Section***Daniel Noll, Martin Droba, Oliver Meusel, Ulrich Ratzinger, Kathrin Schulte (IAP, Frankfurt am Main)***Commissioning and Operations, Thursday, 2016 July 7, 9:00-12:40****THAM1X01 Reuse Recycler: High Intensity Proton Stacking at Fermilab***Philip Adamson (Fermilab, Batavia, Illinois)***THAM2X01 Operational Experience at KOMAC***Yong-Sub Cho (Korea Atomic Energy Research Institute (KAERI), Gyeongbuk)***THAM3X01 SNS Commissioning and Operations, the first 10 Years. An Overview of the Components Status after High Intensity Beam Operating Experience***George W. Dodson (ORNL, Oak Ridge, Tennessee)***THAM4X01 Investigation to Improve Efficiency and Availability in Control and Operation of Superconducting Cavity at ESS***Rihua Zeng (ESS, Lund), Olof Troeng (Lund University, Lund)***THAM5X01 Lessons from LHC Commissioning***Mike Lamont (CERN, Geneva)***THAM6X01 The Path to 1 MW \bar{U} Beam Loss Control in the J-PARC 3-GeV RCS***Hideaki Hotchi (JAEA/J-PARC, Tokai-Mura, Naka-Gun, Ibaraki-Ken)***THAM7X01 RHIC Operation and e-lens Commissioning***Xiaofeng Gu, James Alessi, Zeynep Altinbas, Edward Beebe, Michael Blaskiewicz, Joseph Michael Brennan, Donald Bruno, Michael Costanzo, Wolfram Fischer, Chris J. Gardner, David Gassner, Jon Hock, Haixin Huang, Peter Ingrassia, James Jamilkowski, Takeshi Kanesue, Chuyu Liu, Yun Luo, Gregory James Marr, Al Marusic, Chaofeng Mi, Robert Michnoff, Toby Allen Miller, Michiko Minty, Christoph Montag, Alexander I. Pikin, Vahid Houston Ranjbar, Deepak Raparia, Guillaume Robert-Demolaize, Thomas Roser, Theodoro Samms, Paul William Sampson, Vincent Schoefer, Travis Shrey, Kevin Smith, Yugang Tan, Steven Tepikian, Roberto Than, Peter Thieberger, Alex Zaltsman, Keith Zeno (BNL, Upton, Long Island, New York), Simon Mathieu White (ESRF, Grenoble)*

Beam Dynamics in Rings, Thursday, 2016 July 7, 14:00-18:00

- THPM1X01 **Typology of space charge resonances**
Ingo Hofmann (GSI, Darmstadt)
- THPM2X01 **Head-Tail Modes With Strong Space Charge: Theory and Simulations**
Alexey Burov (Fermilab, Batavia, Illinois)
- THPM3X01 **Head-Tail Instability and Landau Damping in Bunches with Space Charge**
Vladimir Kornilov, Oliver Boine-Frankenheim (GSI, Darmstadt)
- THPM4X01 **Resonances and envelope instability in high intensity linear accelerators**
Dong-O Jeon, Ji-Ho Jang, Hyunchang Jin (IBS, Daejeon)
- THPM5X01 **Using an Electron Cooler for Space Charge Compensation in the GSI Synchrotron SIS18**
William Stem (TEMF, TU Darmstadt, Darmstadt), Oliver Boine-Frankenheim (GSI, Darmstadt; TEMF, TU Darmstadt, Darmstadt)
- THPM6X01 **Space charge effects in FFAG**
Malek Haj Tahar, Francois Meot (BNL, Upton, Long Island, New York)
- THPM7X01 **Use of RF Quadrupole Structures to Enhance Stability in Accelerator Rings**
Michael Schenk, Alexej Grudiev, Kevin Shing Bruce Li, Kai Papke (CERN, Geneva)
- THPM8X01 **Nonlinear Optics Experiments at the University of Maryland Electron Ring**
Kiersten J Ruisard, Brian Louis Beaudoin, Irving Haber, Timothy Koeth (UMD, College Park, Maryland)
- THPM9X01 **Space Charge Effects and Mitigation in the CERN PS Booster, in View of the Upgrade.**
Elena Benedetto (CERN, Geneva)
- THPM10X01 **Stripline Beam Position Monitors With Improved Frequency Response and Their Coupling Impedances**
Yoshihiro Shobuda (JAEA/J-PARC, Tokai-Mura, Naka-Gun, Ibaraki-Ken), Takeshi Toyama (J-PARC, KEK & JAEA, Ibaraki-ken), Yong Ho Chin, Koji Takata (KEK, Ibaraki), Keigo Nakamura (Kyoto University, Kyoto)

Beam Instruments and Interactions, Thursday, 2016 July 7, 9:00-12:40

- THAM1Y01 **Beam Commissioning of C-ADS Linac Instrumentation**
Yanfeng Sui (IHEP,)
- THAM2Y01 **Measurements of Beam Pulse Induced Mechanical Strain Inside the SNS* Target Module**
Willem Blokland, Yun Liu, Bernard Riemer, Mark Wendel, Drew Winder (ORNL, Oak Ridge, Tennessee), Michael Dayton (ORNL RAD, Oak Ridge, Tennessee)
- THAM3Y01 **R&D on micro-Loss Monitors for High Intensity Linacs like LIPAc**
Jacques Marroncle (CEA/DSM/IRFU,), Michal Pomorski (CEA/DRT/LIST, Gif-sur-Yvette Cedex), Philippe Abbon, Anthony Marchix (CEA/IRFU, Gif-sur-Yvette)
- THAM4Y01 **New Arrangement of Collimators of J-PARC Main Ring**
Masashi Shirakata, Susumu Igarashi, Koji Ishii, Yoichi Sato, Junpei Takano (KEK, Ibaraki)

THAM5Y01 Path to Beam Loss Reduction in the SNS Linac Using Measurements, Simulation and Collimation

Alexander V. Aleksandrov (ORNL, Oak Ridge, Tennessee)

THAM6Y01 Simulations and Detector Technologies for the Beam Loss Monitoring System at the ESS Linac

Irena Dolenc Kittelmann, Thomas Shea (ESS, Lund)

THAM7Y01 Beam-Material Issues for Instrumentation in a 5 MW Monolith

Monika Hartl, Yongjoong Lee, Thomas Shea, Cyrille Thomas (ESS, Lund)

THAM8Y01 Developments in Non-destructive Beam Profile Monitors

Carsten Peter Welsch (Cockcroft Institute, Warrington, Cheshire; The University of Liverpool, Liverpool)

Beam Dynamics in Linacs, Thursday, 2016 July 7, 14:00-18:00

THPM1Y01 The Optimization Design of CIADS Linac

Shuhui Liu, Weilong Chen, Yuan He, Huan Jia, Yue Tao, Zhijun Wang (IMP/CAS, Lanzhou)

THPM2Y01 Instability of CW RFQ With High Beam Loading

Ran Huang, Yuan He, Hongwei Zhao (IMP/CAS, Lanzhou)

THPM3Y01 Space Charge Resonances in Linacs

Ciprian Plostinar (STFC/RAL/ASTeC, Chilton, Didcot, Oxon)

THPM5Y01 Beam dynamics studies for a multi-ion linac injector to EIC booster

Peter Ostroumov, Zachary Alan Conway, Brahim Mustapha (ANL, Argonne), Alexander Plastun (ANL, Argonne, Illinois)

THPM6Y01 Collective Beam Instability and Beam Halo Due to Space Charge

Chao Li, Zhicong Liu, Qing Qin (IHEP, Beijing), Robert Jameson (IAP, Frankfurt am Main)

THPM7Y01 A New RFQ Model and Symplectic Multi-Particle Tracking In the IMPACT Code

Ji Qiang (LBNL, Berkeley, California)

THPM8Y01 Space Charge Neutralized H- Beam Transport at Low Energies

Deepak Raparia (BNL, Upton, Long Island, New York)

THPM9Y01 An Advanced Procedure for Longitudinal Beam Matching for the SC CW Heavy Ion Linac With Variable Output Energy

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Plenary Session, Friday, 2016 July 8, 9:00-12:40

FRAM2P01 Summary WG-A

FRAM3P01 Summary WG-B

FRAM4P01 Summary WG-C

Luc Perrot (IPN, Orsay)

FRAM5P01 **Summary WG-D**

FRAM6P01 **Summary WG-E**

FRAM7P01 **Plasma Accelerators**

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