Friday, July 8, 2016

09:00 - 17:00

**Satellite Meeting (By Invitation Only)**
Executive Level
CCM Working Group on the Realisation of the Kilogram (CCM WGR-kg) (By Invitation Only)
Birch Room - Executive Level
Chair: Horst Bettin, PTB

Saturday, July 9, 2016

09:00 - 17:30

09:00 - 17:30

16:00 - 17:00

Satellite Meetings (By Invitation Only)
Executive Level
CCEM Working Group on the Electrical Methods to Monitor the Stability of the Kilogram (By Invitation Only)
Birch Room - Executive Level
Chair: Ian Robinson, National Physical Laboratory

Power and Energy Experts Meeting (By Invitation Only)
Maple Room - Executive Level
Chair: Paul Wright, NPL

Sunday, July 10, 2016

12:00 - 20:30

**Registration**
Nunavut

14:00 - 15:30

16:00 - 17:30

Satellite Meetings (By Invitation Only)
Executive Level
Informal Meeting of the APMP TCEM (By Invitation Only)
Oak Room - Executive Level
Chair: Murray Early, Measurement Standards Laboratory of New Zealand

CCEM Working Group of Regional Metrology Organisations (WG-RMO) (By Invitation Only)
Birch Room - Executive Level
Chair: Ilya Budovsky, National Measurement Institute Australia

Informal EURAMET SCLF meeting (By Invitation Only)
Maple Room - Executive Level
Chair: Jürgen Melcher, PTB

18:00 - 20:30 Welcome Reception
Provinces & Confederation Foyer

Monday, July 11, 2016

07:00 - 18:30 Registration
Nunavut

08:30 - 09:00 Opening Session
Governor General Ballroom

09:00 - 09:45 Plenary Mo-PL1: Quantum-based Voltage Metrology with Superconducting Josephson Devices at NIST
Governor General Ballroom
Presenting Author: Sam Benz, National Institute of Standards and Technology

09:45 - 10:00 Group Picture
Governor General Ballroom

10:00 - 18:00 Exhibition
Confederation Foyer

10:00 - 10:30 Coffee Break
Confederation Foyer

10:30 - 12:30 Mo-1 Voltage I
Governor General Ballroom
Chair: Alain Rufenacht, NIST

Investigations on Extending the Frequency Range of PJVS based AC Voltage Calibrations
Presenting Author: Waldemar Guilherme Kürten Ihlenfeld,

Further Investigation for Piecewise Sampling to Overcome Transient Effect of Staircase Waveform
Presenting Author: Yan Yang, National Institute of Metrology

Stable arbitrary waveform generator as a transfer standard for ADC calibration
Presenting Author: Jaani Nissila, VTT Technical Research Center of Finland Ltd,

Characterization of the frequency response of Analog-to-Digital Converters
Presenting Author: Javier Diaz de Aguilar, Centro Español de Metrología (CEM)

Development of high precision voltage dividers and buffer for AC voltage metrology up to 1 MHz
Presenting Author: Bjørnar Karlsen, Justervesenet

Design of delta-sigma feedback loop for quantum voltage digitizer
Presenting Author: Jane Ireland, National Physical Laboratory
<table>
<thead>
<tr>
<th>10:30 - 12:30</th>
<th>Mo-2 Power and Energy I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provinces I</td>
<td>Chair: Gerald FitzPatrick, NIST</td>
</tr>
<tr>
<td>Power Quality Propagation Measurements in Smart Grids</td>
<td>Presenting Author: Paul Wright, NPL</td>
</tr>
<tr>
<td>Presenting Author: Umberto Pogliano, INRIM</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>10:30 - 12:30</th>
<th>Mo-3 Radio Frequency / Microwave I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provinces II</td>
<td>Chair: Luciano Brunetti, Istituto Nazionale di Ricerca Metrologica (INRIM)</td>
</tr>
<tr>
<td>Mechanical Aspects in mm-wave Measurements</td>
<td>Presenting Author: Markus Zeier, METAS</td>
</tr>
<tr>
<td>Presenting Author: Xiaohai Cui, National Institute of Metrology, China</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>12:30 - 14:00</th>
<th>Lunch</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>14:00 - 16:00</th>
<th>Mo-4 Quantum Standards I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governor General Ballroom</td>
<td>Chair: Jan-Theodoor Janssen, National Physical Laboratory</td>
</tr>
<tr>
<td>From AC Quantum Voltmeter to Quantum Calibrator</td>
<td>Presenting Author: Jinni Lee, Physikalisch-Technische Bundesanstalt</td>
</tr>
<tr>
<td>Presenting Author: Alain Institute of Standards</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>14:00 - 16:00</th>
<th>Mo-4 Quantum Standards I</th>
</tr>
</thead>
<tbody>
<tr>
<td>Governor General Ballroom</td>
<td>Chair: Jan-Theodoor Janssen, National Physical Laboratory</td>
</tr>
<tr>
<td>From AC Quantum Voltmeter to Quantum Calibrator</td>
<td>Presenting Author: Jinni Lee, Physikalisch-Technische Bundesanstalt</td>
</tr>
<tr>
<td>Presenting Author: Alain Institute of Standards</td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Session</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------</td>
</tr>
<tr>
<td>14:00 - 16:00</td>
<td>Mo-5 Impedance I</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>14:00 - 16:00</td>
<td>Mo-6 Current I</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>16:00 - 16:45</td>
<td>Coffee Break</td>
</tr>
<tr>
<td>16:00 - 18:00</td>
<td>Poster Sessions: Mo-PS1 to PS9</td>
</tr>
<tr>
<td>18:00 - 19:30</td>
<td>Satellite Meeting (By Invitation Only)</td>
</tr>
<tr>
<td>18:00 - 19:30</td>
<td>Meeting of the Supplementary Comparison</td>
</tr>
<tr>
<td></td>
<td>EURAMET.EM-S31 (By Invitation Only)</td>
</tr>
</tbody>
</table>

**Tuesday, July 12, 2016**

07:30 - 18:30 Registration
Nunavut
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
</table>
| 08:30 - 09:15 | Kibble Plenary Tu-PL2: Nature never deals off of the bottom of the deck... but she holds all of the aces: The joys of doing precision measurement science  
Governor General Ballroom  
Presenting Author: James Faller, The University of Colorado, and the University of Glasgow |
| 09:15 - 10:00 | Kibble Plenary Tu-PL2: Precision Atom Interferometry  
Governor General Ballroom  
Presenting Author: Mark Kasevich, Stanford University |
| 10:00 - 18:00 | Exhibition  
Confederation Foyer |
| 10:00 - 10:30 | Coffee Break  
Confederation Foyer |
| 10:30 - 12:30 | Tu-1 Watt Balances I  
Governor General Ballroom  
Chair: Beat Jeckelmann, Federal Institute of Metrology METAS  
First mass measurements with the NIST-4 watt balance  
Presenting Author: Ali Eichenberger, METAS  
The METAS Watt Balance MARK II  
Presenting Author: Darine Haddad, National Institute of Standards and Technology  
Noise Reductions in the NRC Watt Balance  
Presenting Author: Barry Wood, National Research Council Canada  
The Construction of the New Joule Balance at the NIM  
Presenting Author: Zhengkun Li, National Institute of Metrology (P. R. China)  
Progress on the BIPM watt balance  
Presenting Author: Hao Fang, BIPM  
Towards the next generation NPL watt balance  
Presenting Author: Ian Robinson, National Physical Laboratory |
| 10:30 - 12:30 | Tu-2 Power & Energy II  
Provinces I  
Chair: Thomas Nelson, NIST  
Comparison of Two Realisations of a Power Standard  
Presenting Author: Ilya Budovsky, National Measurement Institute Australia  
A computer-controlled calibrator for instrument transformer test sets  
Presenting Author: Christian Mester, Federal Institute of Metrology METAS  
Calibration of Electronic Transformer with Digital Output Based on Synchronous Sampling  
Presenting Author: Yang Pan, Shanghai Institute of Measurement and Testing Technology  
Precision Loss Measurement of Reactive Compensation Components by Sampling Voltage and Current  
Presenting Author: Enrico Mohns, PTB  
An AC Current Transformer Measuring System for Power Frequencies  
Presenting Author: Wei Zhao, National Institute of Metrology, China  
Development of HF Power Source for the Calibration of Electrosurgical Analyzer  
Presenting Author: Wei Zhao, National Institute of Metrology, China |
| 10:30 - 12:30 | Tu-3 Time and Frequency I  
Provinces II  
Chair: Mikko Merimaa, VTT Technical Research Centre of Finland Ltd.  
QPN Limited Stability  
Operational Strontium  
Progress toward a new Optical Cryogenic Sub-Doppler laser  
Dependence of Scale  
Presenting Author: Enrico Mohns, PTB |
and BBR Shift Uncertainty of NRC’s Sr+ Atomic Clock
Presenting Author: Bin Jian, National Research Council Canada

optical lattice clocks implementation of an In+ optical clock Silicon Resonators spectroscopy of molecular iodine at 578 nm
Presenting Author: Eva Bookjans, Observatoire de Paris Presenting Author: Ying Li, National Institute of information and Communications Technology Presenting Author: Thomas Legero, Physikalisch-Technische Bundesanstalt Presenting Author: Takumi Kobayashi, National Metrology Institute of Japan

Factor on Initial Cloud Size for an Atom-Ball Gyroscope
Presenting Author: Bruno Pelle, National Institute of Standards and Technology

12:30 - 14:00
Lunch
Confederation II & III

14:00 - 16:00
Poster Sessions: Tu-PS1 to PS8
Confederation I

14:30 - 15:15
Coffee Break
Confederation Foyer

16:00 - 18:00
Tu-4 Quantum Standards II
Governor General Ballroom
Chair: Stephane Solve, BIPM

2 Volt Pulse-Driven Josephson Arbitrary Waveform Synthesizer
Presenting Author: Nathan Flowers-Jacobs, NIST

First Metrological Applications of the PTB 1 V Josephson Arbitrary Waveform Synthesizer
Presenting Author: Luis Palafox-Gámir, PTB

Direct Comparison of a Pulse-driven JAWS and a PJVS at 1 Volt
Presenting Author: Alain Rufenacht, NIST

Precision μV-Synthesizer Based on a Pulse-driven Josephson Array
Presenting Author: Ralf Behr, Physikalisch-Technische Bundesanstalt

AC-DC Calibrations With a Pulse-driven AC Josephson Voltage Standard Operated in a Small Cryostat
Presenting Author: Helko van den Brom, VSL

Implementation of a Programmable Josephson Voltage Standard in a Zero Boil-off Dewar
Presenting Author: Tom Stewart, Measurement Standards Laboratory of New Zealand

16:00 - 18:00
Tu-5 Impedance II
Provinces I
Chair: Luca Callegaro, Istituto Nazionale di Ricerca Metrologica (INRIM)

Measurement of Time Constant of Four-terminal Resistor Based on Dissipation Factor
Presenting Author: Jian Feng, Shanghai Institute of Measurement and Testing Technology

Improvements on the Design of a Four Terminal-Pair Coaxial Bridge
Presenting Author: Gean Geronymo, Inmetro

Transport Behaviour and Stability of Inductors for International Comparisons
Presenting Author: Jürgen Melcher, PTB

Calibration of a LCR-Meter at Arbitrary Phase Angles using a Fully Automated Impedance Simulator
Presenting Author: Frédéric Overney, Federal Institute of Metrology METAS

Development of a programmable small capacitance standard at LNE
Presenting Author: Olivier Thévenot, Laboratoire National de métrologie et d'Essais

16:00 - 18:00
16:00 - 18:00
Tu-6 Radio Frequency / Microwave II
Provinces II
Chair: Masahiro Horibe, NMIJ / AIST
Thermoelectric Power Transfer Standards for V- and W-Band
Characterization of high-Temperature Control of speed photodetectors using a laser-based vector network analyzer
Presenting Author: Rolf Judaschke, PTB

18:00 - 18:30
Satellite Meetings (By Invitation Only)
Executive Level
EURAMET EM, DC & Quantum Metrology
EURAMET TC-EM Working Group on Strategic Experts Meeting (By Invitation Only)
Planning WGSP (By Invitation Only)
Oak Room - Executive Level
Oak Room - Executive Level
Chair: Jan-Theodoor Janssen, National Physical Laboratory
Chair: Luca Callegaro, Istituto Nazionale di Ricerca Metrologica (INRIM)

Wednesday, July 13, 2016

07:30 - 18:30
Registration
Nunavut

08:30 - 09:15
Plenary We-PL3: Linking the International System of Units to Fundamental Constants
Governor General Ballroom
Presenting Author: Joachim Ullrich, Physikalisch-Technische Bundesanstalt

09:15 - 10:00
Plenary We-PL3: Optical atomic clock
Governor General Ballroom
Presenting Author: Jun Ye, National Institute of Standards and Technology and University of Colorado

10:00 - 18:00
Exhibition
Confederation Foyer

10:00 - 10:30
Coffee Break
Confederation Foyer

10:30 - 10:50
10:50 - 11:10
11:10 - 11:30
11:30 - 11:50
11:50 - 12:10
12:10 - 12:30

10:30 - 12:30
We-1 Quantum Standards III
Governor General Ballroom
Accuracy verification of single-electron pumps with 0.2 ppm uncertainty
Presenting Author: Frank Hohls, Physikalisch-Technische Bundesanstalt

Universality of the tunable-barrier electron pump at the part-per-million level
Presenting Author: Stephen Giblin, National Physical Laboratory

Robustness of single-electron pumps at sub-ppm level
Presenting Author: Myung-Ho Bae, Korea Research Institute of Standards and Science

Towards a programmable quantum current generator
Presenting Author: Wilfrid Poirier, Laboratoire National de métrologie et d'Essais

10:30 - 12:30
We-2 Impedance III
Provinces I
Chair: Ralf Behr, Physikalisch-Technische Bundesanstalt

Impedance Bridge Based on Pulse-Driven Josephson Arrays for Arbitrary Impedance Ratios
Presenting Author: Stephan Bauer, Physikalisch-Technische Bundesanstalt

Systematic Error Analysis in a Josephson Impedance Bridge
Presenting Author: Thomas Hagen, PTB

Josephson-Based Full Digital Bridge for High-Accuracy Impedance Comparisons
Presenting Author: Frédéric Overney, Federal Institute of Metrology METAS

A three-arm 4TP digitally-assisted bridge for the comparison of arbitrary impedances
Presenting Author: Massimo Ortolano, Politecnico di Torino

A Digital Four-Terminal Pair Impedance Bridge
Presenting Author: Waldemar Guilherme Kürten Ihlenfeld, INMETRO

Large Capacitance Measurement System Based on Dual Balance Bridge
Presenting Author: You Li, Beijing Orient Institute of Measurement and Test

10:30 - 12:30
We-3 Voltage II
Provinces II
Chair: Ilya Budovsky, National Measurement Institute Australia

10 V Transconductance Amplifier for the Comparison of Josephson Standards and Thermal Converters
Presenting Author: Ilya Budovsky, National Measurement Institute Australia

Low-Voltage AC-DC transfer standards at NMJ
Presenting Author: Hiroyuki Fujiki, National Metrology Institute of Japan

A Simple Model for the Prediction of AC-DC Difference of Multi-Junction Thermal Converters
Presenting Author: Stefan Cular, National Institute of Standards and Technology

Calibration of Inductive Voltage Dividers at Power Frequencies Using an AC-PJVS
Presenting Author: Jimmy Hsu, Center for Measurement Standards (CMS/ITRI)

Establishing of 1000V Multi-decade Inductive Voltage Divider Standard at NIM
Presenting Author: Wei Wang, National Institute of Metrology P.R.China

Improved Setup for Bridge Standard Calibration up to 5 kHz
Presenting Author: Marc Beug, Physikalisch-Technische Bundesanstalt

12:30 - 14:00
Lunch
Confederation II & III

14:00 - 14:20
We-4 Fundamental Constants I
Governor General Ballroom
Chair: Horst Bettin, PTB
## We-5 Power & Energy III

### Provinces I

**Chair:** Rene David Carranza, Centro Nacional De Metrología

**A Calibration Setup for IEC 61850-9-2 Test Sets**
Presenting Author: Marco Agustoni, Federal Institute of Metrology (METAS)

**Calibration of 90° Phase An Electronic Load to Difference Measured by Verify Harmonic Digital Sampling Method Emission Compliance**
Presenting Author: Jian Feng, Shanghai Institute of Measurement and Testing Technology

**A Proposal to Establish a System for Calibration of Harmonic Power Analyzers**
Presenting Author: Peter Davis, National Physical Laboratory

**Improvement of Agilent 3458a Performances in Wideband Complex Transfer Function Measurement**
Presenting Author: Jian-Dao Li, National Institute of Metrology

**Towards a cryogen-free table-top primary resistance standard**
Presenting Author: Jan-Theodoor Janssen, National Physical Laboratory

### Provinces II

**Convenient graphene-based quantum Hall resistance standards**
Presenting Author: Wilfrid Poirier, Laboratoire National de métrologie et d'Essais

**Magnetocapacitance and Dissipation Factor of Epitaxial Graphene Hall Bars**
Presenting Author: Juergen Schurr, PTB

**Millimeter-sized Graphene Quantum Hall Devices for Resistance Standards**
Presenting Author: Yanfei Yang, National Institute of Standards and Technology

**Tests of Series Quantum Hall Arrays Based on Epitaxial Graphene**
Presenting Author: Antti Manninen, VTT Technical Research Centre of Finland Ltd

**Towards a cryogen-free AC quantum Hall effect in epitaxial graphene**
Presenting Author: Felix Lüönd, METAS

### Poster Sessions: We-PS1 to PS7

**Confederation Foyer**

16:00 - 18:00
18:15 - 19:00
Transportation from the Westin to the Banquet Venue
Canadian Museum of History

19:00 - 21:00
Banquet at the Canadian Museum of History
Canadian Museum of History

21:00 - 21:30
Transportation from the Banquet Venue to the Westin
Canadian Museum of History

Thursday, July 14, 2016

08:00 - 18:30
Registration
Nunavut

08:30 - 10:10
Th-1 Voltage III
Governor General Ballroom
Chair: Yi-hua Tang, National Institute of Standards and Technology
Measurement of Boltzmann Constant Using Superconducting Integrated Circuit
Presenting Author: Chiharu Urano, National Institute of Advanced Industrial Science and Technology

08:30 - 10:10
Th-2 Power & Energy IV
Provinces I
Chair: Eddy So, National Research Council Canada
Study on High-Frequency Power Calibration Technology for Electrosurgical Analyzer
Presenting Author: Wei Zhao, National Institute of Metrology, China

08:30 - 10:10
Th-3 Impedance IV
Provinces II
Chair: Jürgen Melcher, PTB
Determination of impedance meter nonlinearity with a capacitance build-up method
Presenting Author: Faranak Pourdanesh, Istituto Nazionale di Ricerca Metrologica (INRIM); Politecnico di Torino

The Optimal Hollow Active Auxiliary Electrode and Its Additional Functions Research
Presenting Author: Lu Huang, National Institute of Metrology, China

Evaluation of a Continuously Variable Calculable Capacitor
Presenting Author: Yicheng Wang, NIST

Progress Report on Measuring the von Kitzing Constant at the BIPM
Presenting Author: Pierre Gournay, BIPM

Progress report on the determination of RK at LNE
Presenting Author: Olivier Thévenot, Laboratoire National de métrologie et d’Essais

10:00 - 16:00
Exhibition
Confederation Foyer

10:00 - 10:30
Coffee Break
Confederation Foyer

10:30 - 12:30
Th-4 Quantum Standards IV
Governor General Ballroom
Chair: Nick Fletcher, Bureau International des Poids et Mesures (BIPM)

Universality test of the quantum Hall effect on topological insulator
Direct Comparison of Fractional and Integer Quantized Hall Resistances: Status and Perspectives
Presenting Author: Tetsuro Misawa, NMIJ, AIST

Development of 1-MΩ nanoSQUIDs Based on Nanobridge Junctions
Presenting Author: Takehiko Oe, NMIJ/AIST

Investigation of Niobium nanoSQUIDs Based on Nanobridge Junctions
Presenting Author: Xueshen Wang, National Institute of Metrology

A direct DC 10 V comparison between the NIMJ and the BIPM Programmable Josephson Voltage Standards
Presenting Author: Stephane Solve, BIPM

Characterization of High-Stability AC Source Using AC-PJVS
Presenting Author: Yasutaka Amagai, National Metrology Institute of Japan

10:30 - 12:30
Th-5 Time and Frequency II
Provinces I
Chair: François Nez, Laboratoire Kastler Brossel /CNRS/UPMC/ENS

Study of the OP-PTB Link by Carrier-Phase Two-Way Satellite Time and Frequency Transfer
Presenting Author: Joseph Achkar, LNE-SYRTE / Observatoire

Current Status of Terahertz Frequency Metrology at NICT
Presenting Author: Motohiro Kumagai, National Institute of Information and

NIST on a Chip with Alkali Vapor Cells: Initial Quality Evaluation Results
Presenting Author: John Kitching, NIST

Iodine Absorption Cells v.v.i., Czech Academy of Sciences
Presenting Author: Patrick Egan, NIST

Laser Refractometer as a Transfer Standard of the Pascal
Presenting Author: Gordon Shaw, U.S. National Institute of Standards and

Using small mass and force metrology for laser power measurement
Presenting Author: Jan Hrabina, Institute of Scientific Instruments v.v.i., Czech Academy of Sciences

Characterizing a high-stability AC source
Presenting Author: Yasutaka Amagai, National Metrology Institute of Japan
10:30 - 12:30

**Th-6 Radio Frequency / Microwave III**

**Provinces II**
Chair: Ron Ginley, NIST

- Comparison between time- and frequency-domain high-frequency device characterizations
- Quantum Based RF E-field Sensing by Using Two-photon Transition in Rydberg Atoms
- Measurement of Uncertainty of Free Space Antenna Factor for Bi-log Antenna Using Amplitude Center
- Investigation of Peak Envelope Power Measurements and Uncertainties

Presenting Author: Mark Bieler, Physikalisch-Technische Bundesananstalt

Presenting Author: Djamel Allal, Laboratoire National de Métrologie et d’Essais (LNE), Trappes, France

Presenting Author: Zhenfei Song, National Institute of Metrology (NIM), China

Presenting Author: Satoru Kurokawa, National Institute of Advanced Industrial Science and Technology of Japan

Presenting Author: Yu Song Meng, National Metrology Centre, A*STAR

Presenting Author: Brian O’Keefe, Tufts University

12:30 - 14:00

**Lunch**
Confederation II & III

12:30 - 15:00

18:00 - 19:30

12:30 - 19:30

**Satellite Meetings (By Invitation Only)**

Executive Level

- CPEM Executive Committee Meeting (By Invitation Only)
- ACQ-PRO Project Meeting

Oak Room - Executive Level
Chair: Javier Diaz de Aguilar, Centro Español de Metrología (CEM)

14:00 - 16:00

**Poster Sessions: Th-PS1 to PS8**
Confederation I

14:30 - 15:15

**Coffee Break**
Confederation Foyer

16:00 - 18:00

**Exhibition Teardown**
Confederation Foyer

16:00 - 16:20
16:40 - 17:00
17:20 - 17:40
17:40 - 18:00

16:00 - 18:00

**Th-7 Fundamental Constants II**
Governor General Ballroom
Chair: Peter Mohr, NIST

- Laser spectroscopy of muonic deuterium: new contribution to the Johnson Noise Thermometry
- Improved spectral aberration in Johnson Spectroscopy of 1S-3S Transition in Hydrogen
- Upgrading the NIST Electrostatic Force Balance
- An Oscillating Magnet Watt Balance
- Towards a test of the Weak Equivalence Principle of gravity using
proton puzzle

Presenting Author: Alessio Pollarolo, NIST
Presenting Author: Helene Fleuriau, Laboratoire Kastler Brossel / UPMC / CNRS and Technology
Presenting Author: Julian Stirling, National Institute of Standards
Presenting Author: Haji Ahmadov, TUBITAK
Presenting Author: François Nez, Laboratoire Kastler Brossel / CNRS/UPMC/ENS

16:00 - 18:00
Th-8 Resistance II
Provinces I
Chair: Murray Early, Measurement Standards Laboratory of New Zealand

Third Generation of Adapted Wheatstone Bridge for High Resistance Measurements at NIST
Presenting Author: Shamith Payagala, NIST/JQI

Ultra-High Resistance Measurement Based on Non-Contact Electrostatic Voltmeter
Presenting Author: Feipeng Lin, National Institute of Metrology, China

Development of an AC Current Comparator Based Resistance Measurement System
Presenting Author: Waldemar Kürten Ihlenfeld, INMETRO

Development of 1 Ω and Evaluation of the 10 Ω Metal Foil Standard Resistors Automatic Coaxial Mechanical Scanner for High-Resistance Measurement Use
Presenting Author: Nobu-Hisa Kaneko, NMIJ/AIST

Quantum Hall Resistance Traceability for the NIST-4 Watt Balance
Presenting Author: Dean Jarrett, National Institute of Standards and Technology

16:00 - 18:00
Th-9 Novel Sensors / Magnetics
Provinces II
Chair: Po Gyu Park, Korea Research Institute of Standards and Science (KRISS)

Time-resolved detection Methods for the berry curvature in GaAs nanostructures
Presenting Author: Mark Bieler, Physikalisch-Technische Bundesanstalt

Analysis of Heat Loss for Measurement of Thomson Coefficient Using AC Calorimetric Method
Presenting Author: Janne Lehtinen, VTT Technical Research Centre of Finland Ltd

Coplanar Capacitive sensor for Measuring Horizontal Displacement in Joule Balance
Presenting Author: Yasutaka Amagai, National Metrology Institute of Japan

Identification and correction of artefact in the measurement of pulsed magnetic fields
Presenting Author: Domenico Giordano, Istituto Nazionale di Ricerca Metrologica

Digital Control of Magnetic Induction Waveform Applied to Silicon Steel Sheets Characterization
Presenting Author: Matheus Pinheiro, Universidade Federal de Goiás

Friday, July 15, 2016

08:00 - 11:30
Registration
Nunavut
08:30 - 08:50 08:50 - 09:10 09:10 - 09:30 09:30 - 09:50 09:50 - 10:10 10:10 - 10:30

08:30 - 10:30
Fr-1 Avogadro I
Governor General Ballroom
Chair: Michael Stock, BIPM
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Theme</th>
<th>Presenting Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>08:30 - 10:30</td>
<td><strong>Fr-2 Power &amp; Energy V</strong></td>
<td>-</td>
<td>Presenting Author: Harold Parks, National Research Council Canada</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Bilateral high voltage AC peak and rms value comparison up to 150 kV between MIKES-VTT and PTB</td>
<td>Presenting Author: Jari Hälström, MIKES-VTT</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Voltage Dependence Measurement of a 110 kV LVE-TSVT</td>
<td>Presenting Author: Haiming Shao, National Institute of Metrology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Traceability of No-Load Loss Measurements of High Voltage Transmission Lines</td>
<td>Presenting Author: Eddy So, National Research Council Canada</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Research on Quantity Traceability for High Accuracy Two-stage Voltage Transformer</td>
<td>Presenting Author: Xianlin Pan, NIM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Design and Self-calibration of the RVD with Serial-parallel Connection</td>
<td>Presenting Author: Huanghui Zhang, School of Instrumentation Science and Opto-electronics Engineering, Beihang University</td>
</tr>
<tr>
<td>08:30 - 10:30</td>
<td><strong>Fr-3 Radio Frequency / Microwave IV</strong></td>
<td>-</td>
<td>Presenting Author: Mark Bieler, Physikalisch-Technische Bundesanstalt</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Estimation of waveform state levels and uncertainties using the histogram and shorth methods</td>
<td>Presenting Author: Yuto Kato, National Institute of Advanced Industrial Science and Technology</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Permittivity measurements for high-permittivity materials at NMJ using resonator methods</td>
<td>Presenting Author: Michele Borsero, INRIM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>An experimental set-up to compare measurements and simulations in MRI dosimetry</td>
<td>Presenting Author: Young-Pyo Hong, Korea Research Institute of Standards and Science</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Measurement of High-Permittivity Dielectric Characteristics at Microwave and mm-wave</td>
<td>Presenting Author: Rolf Judaschke, PTB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Leakage Effects in Millimeter-Wave Power Transfer Standards</td>
<td>Presenting Author: Dazhen Gu, National Institute of Standards and Technology</td>
</tr>
<tr>
<td>10:30 - 11:00</td>
<td><strong>Coffee Break</strong></td>
<td>-</td>
<td>Presenting Author: Mark Bieler, Physikalisch-Technische Bundesanstalt</td>
</tr>
</tbody>
</table>

**Presenting Authors:**
- Frank Haertig, Physikalisch-Technische Bundesanstalt
- Naoki Kuramoto, National Institute of Advanced Industrial Science and Technology
- Enrico Massa, INRIM - Istituto Nazionale di Ricerca Metrologica
- Michael Kolbe, Physikalisch-Technische Bundesanstalt
- Arnold Nicolaus, PTB Physikalisch-Technische Bundesanstalt
- Torsten Mai, Physikalisch-Technische Bundesanstalt
- Harold Parks, National Research Council Canada
- Jari Hälström, MIKES-VTT
- Haiming Shao, National Institute of Metrology
- Eddy So, National Research Council Canada
- Xianlin Pan, NIM
- Mark Bieler, Physikalisch-Technische Bundesanstalt
- Yuto Kato, National Institute of Advanced Industrial Science and Technology
- Michele Borsero, INRIM
- Young-Pyo Hong, Korea Research Institute of Standards and Science
- Rolf Judaschke, PTB
- Dazhen Gu, National Institute of Standards and Technology

**Sessions:**
- **Fr-2 Power & Energy V**
- **Fr-3 Radio Frequency / Microwave IV**
11:00 - 11:30  Closing Session
Governor General Ballroom

11:30 - 12:00  Transportation to NRC

12:00 - 16:00  NRC Laboratory Tour
National Research Council Laboratory Facility

16:00 - 16:30  Transportation to the Westin Hotel

Saturday, July 16, 2016

09:00 - 16:00  Satellite Meetings (By Invitation Only)
Executive Level
SIM Electricity and Magnetism Metrology
Working Group (By Invitation Only)
Quebec Room
Chair: Lucas Daniel Di Lillo, Instituto Nacional De
Tecnologia Industrial INTI

CODATA Task Group on Fundamental
Constants (TGFC) (By Invitation Only)
Oak Room - Executive Level
Chair: David Newell, NIST