

**Session Program**

**17-22 Jun 2018**



**15th European Vacuum Conference (EVC-15)**  
***Vacuum Science & Technology***

# Monday 18 June

09:55

## Vacuum Science & Technology: 1

Session | Location: CIG, Room 4 | Convener: Karl Jousten

09:55-10:15

### Development of 30 and 1000 Torr Full-Scale Optical Diaphragm Gauges

**Speaker**

Janos Marki

10:15-10:35

### Conceptual consequences of the NewSI to the unit of pressure

**Speaker**

Dr Dominik Prazak

10:35-10:55

### The End of Mercury Manometers with the Quantum-Based Pascal

**Speaker**

Jay Hendricks

10:55

11:15

## Vacuum Science & Technology: 1

Session | Location: CIG, Room 4 | Convener: Karl Jousten

11:15-11:35

### Development of a new UHV/XHV pressure standard (Cold Atom Vacuum Standard)

**Speaker**

Julia Scherschligt

11:35-11:55

### Simulation of an extractor ionisation gauge

**Speaker**

Nenad Bundaleski

11:55-12:15

### Electron source for an improved hot cathode ion gauge

**Speaker**

Mr Claus Illgen

12:15

## Tuesday 19 June

09:30

### Vacuum Science & Technology: 2

Session | Location: CIG, Room 4 | Convener: Janos Marki

09:30-09:50

#### New aluminium beam pipe upgrade for the LHC experiments during the LS2

**Speaker**

Chiara Di Paolo

09:50-10:10

#### Particle free ESS vacuum system

**Speaker**

Christophe Jarrige

10:10-10:30

#### Combining NEG pump and an XHV BNNT cryopump

**Speaker**

Marcy Stutzman

10:30

10:50

### Vacuum Science & Technology: 2

Session | Location: CIG, Room 4 | Convener: Janos Marki

10:50-11:10

#### Pressure evolution in a 3D microcavities array

**Speaker**

Ana Fonseca

11:10-11:30

#### Measurement of the radiation tolerance of vacuum pumps

**Speaker**

Dr Andrew Chew

11:30-11:50

#### Development and optimization of small diameter copper electroformed getter coated vacuum chambers

**Speaker**

Lucia Lain Amador

11:50

13:20

### Vacuum Science & Technology: 3

Session | Location: CIG, Room 4 | Convener: Dr Martin Wüest

13:20-13:40

#### Development of a Neutral Gas- and Ion-Mass Spectrometer for Jupiter's Moons

**Speaker**

Dr Stefan Mayer

13:40-14:20

#### Advancement in transient flow simulation: application to measurements of porous media permeability and tube conductance

**Speaker**

Prof. Irina Graur Martin

14:20-14:40

**Determination of the pressure in a TO vacuum package using a micro Pirani**

**Speaker**

Mr Christoph Langer

14:40-15:00

**Ion pump design to minimize particle emissions**

**Speaker**

Mauro Audi

15:00

15:20

**Vacuum Science & Technology: 3**

Session | Location: CICG, Room 4

15:20-15:40

**Outgassing and gas uptake properties of vacuum and 3D printed materials**

**Speaker**

James Fedchak

15:40-16:00

**Comparative Measurements of Ion Pump pumping speed according to ISO/DIS 3556 and DIN 28429**

**Speaker**

Stefan Meierott

16:00-16:20

**Design and Manufacturing of a wireless SAW-Pirani sensor with extended range**

**Speaker**

Sofia Toto

16:20-16:40

**Gas Modulation Refractometry for High-Precision Assessment of Pressure under Non-Temperature-Stabilized Conditions**

**Speaker**

Dr Martin Zelan

16:40

## Wednesday 20 June

09:30

### Vacuum Science & Technology: 4

Session | Location: CIG, Room 4 | Convener: Irina Graur Martin

09:30-09:50

#### Adhesive bonding: applications and perspectives in UHV

**Speaker**

Dr Michael Flämmich

09:50-10:10

#### New design flexibility for non-magnetic UHV chambers by using AluVaC®-Technology

**Speaker**

Maximilian Biethahn

10:10-10:30

#### High Vacuum set-up for permeability and diffusivity measurements of vacuum materials

**Speaker**

Giuseppe Firpo

10:30

10:50

### Vacuum Science & Technology: 4

Session | Location: CIG, Room 4 | Convener: Irina Graur Martin

10:50-11:10

#### Calibration of helium leak rate down to 10-14 Pa m<sup>3</sup>/s for leak testing of MEMS

**Speaker**

Hajime Yoshida

11:10-11:30

#### A Novel vacuum gauge: Applications for Pressure Measurement, He-Leak detection and Residual Gas Analysis

**Speaker**

Mihail Granovskij

11:30-11:50

#### Measurement of permeability of low permeable membranes

**Speaker**

Mr Martin-Viktor Johansson

11:50-12:10

#### A novel wide-range apparatus developed for performance testing of molecular pump

**Speaker**

Mr Lu Yaowen

12:10

13:20

## Vacuum Science & Technology: 5

Session | Location: CICG, Room 4 | Convener: Jay Hendricks

13:20-13:40

### Ensuring well defined quality of vacuum components - a combined user and manufacturer perspective

**Speaker**

Mr René Bauer

13:40-14:00

### Monitoring of volatile vacuum species using remote optical emission spectroscopy

**Speaker**

Dermot Monaghan

14:00-14:20

### Development and first investigations of a new static expansion system based on aluminum technology

**Speaker**

Dr Karl Jousten

14:20-14:40

### Simulation and measurement of the deuterium retention in the cryogenic beamline of the KATRIN experiment

**Speaker**

Joachim Wolf

14:40-15:00

### An analysing tool for analogue residual gas spectra in UHV implying machine-learning applications

**Speaker**

Berthold Jenninger

15:00

# Thursday 21 June

09:30

## Vacuum Science & Technology: 6

Session | Location: CIG, Room 4 | Convener: Marcy Stutzman

09:30-09:50

### Thermal Analysis of Large-scale Cryopump Used in Large Vacuum Leak Detecting System

**Speaker**

Mr Yueshuai Zhao

09:50-10:10

### Structural Improvement of Multiple-Cavity Dry Scroll Vacuum Pump

**Speaker**

Prof. Kun Liu

10:10-10:30

### The optimisation and simulation of vacuum plume field in ground testing for electric thrusters

**Speaker**

Mr Junwei Wang

10:30

10:50

## Vacuum Science & Technology: 6

Session | Location: CIG, Room 4 | Convener: Marcy Stutzman

10:50-11:10

### Integrated Testing Method of Pumping Performance for Dry Vacuum Pump

**Speaker**

Mr Kun Liu

11:10-11:30

### Conditioning methods to reduce ion-induced desorption

**Speaker**

Markus Bender

11:30-11:50

### Variational Principles and Applications of Local Topological Constants of Motion for Non-Barotropic Magnetohydrodynamics

**Speaker**

Prof. Asher Yahalom

11:50