

# Metrology Symposium

## The Future of Mass Metrology

**Woodland Hills, CA (Los Angeles Area)**

**Wednesday, October 25th - Thursday, October 26th 2017**

METTLER TOLEDO is excited to inform you that on October 25-26, 2017, we will host a Metrology Symposium at the Hilton Woodland Hills/Los Angeles.

The purpose of the symposium is to educate and exchange information, dealing with today's mass calibration technologies, and help with planning for the future of the modern mass lab. During the event, we will have presentations from METTLER TOLEDO global experts, along with guest speakers from Troemner, NIST, NRC and Precision Environments, Inc.

We will cover the latest technologies and techniques in mass comparison, tackle the perennial issues of environmental control and monitoring, and enjoy keynote sessions from NIST (USA) and NRC (Canada).

There is no fee for attendance. Lunch and refreshments will be provided during the event. A preferential hotel rate is available for rooms at the venue, for those who wish to stay overnight.

### Location

Hilton Woodland Hills/Los Angeles  
6360 Canoga Avenue  
Woodland Hills, CA 91367

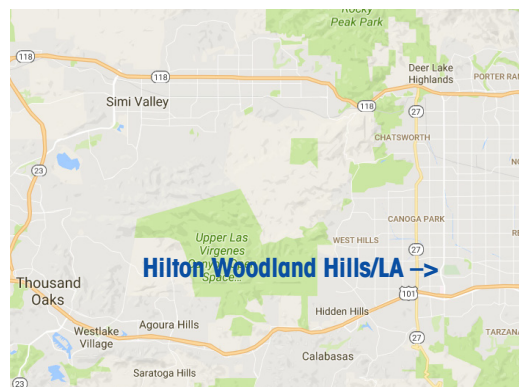
Parking is Valet Only (Validation to be provided)

### To Register

Register online [www.mt.com/na-metrology2017](http://www.mt.com/na-metrology2017)

or contact Ian Ciesniewski

[Ian.Ciesniewski2@mt.com](mailto:Ian.Ciesniewski2@mt.com) or (614) 204-8950



Map of Thousand Oaks/Simi Valley Area

### METTLER TOLEDO Organizers

Shana Richards, [Shana.Richards@mt.com](mailto:Shana.Richards@mt.com)

Ian Ciesniewski, [Ian.Ciesniewski2@mt.com](mailto:Ian.Ciesniewski2@mt.com)

**METTLER TOLEDO**

## Program: Day 1

### Wednesday, October 25th, 2017

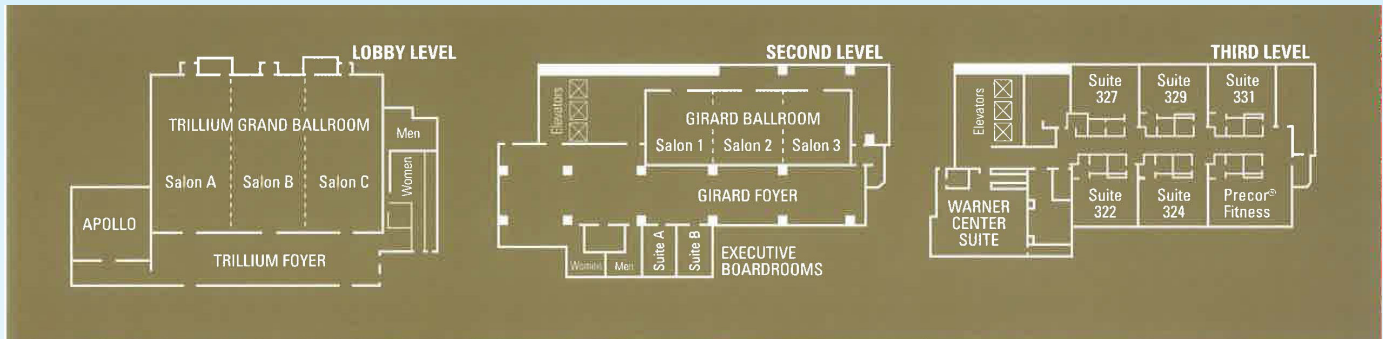
- 8:00 – 8:30 **Arrivals & Networking** – Girard Salon 1 & 2, Second Level
- 8:30 – 9:30 **Mass Metrology Lab Design and Build** – Girard Salon 1 & 2, Second Level  
**Tim VonderHaar – Precision Environments Inc.**  
 Precision Environments' technical approach to Mass Metrology Lab design/build is globally lauded. Tim will discuss interpretation of specifications, design concepts and testing of labs. Tim will detail how regulations and guidelines are implemented in Precision Environments' approach to lab design/build.
- 9:30 – 10:15 **Commercial Mass Metrology with Automation** - Girard Salon 1 & 2, Second Level  
**Joe Moran - Troemner**  
 Troemner has been using METTLER TOLEDO automated mass comparators for over 20 years and the robotic system for the past 6 years in an effort to increase quality and productivity.  
 Presentation will discuss the environmental conditions, software applications and how automation has improved the measurement process
- 10:15 – 10:30 **Break** – Girard Foyer, Second Level
- 10:30 – 12:00 **High Performance Balances for Industry and Research** – Girard Salon 1 & 2, Second Level  
**Ian Ciesniewski and Julian Luescher – METTLER TOLEDO**  
 METTLER TOLEDO constantly strives to develop solutions to provide increases in process efficiency, productivity and profitability for the modern laboratory. MT will unveil it's latest flagship balances, and for the metrology lab, will present the latest iteration of its MC Link software, covering all stages of the management of the weight calibration process.
- 12:00 – 1:00 **Lunch** – Girard Salon 3, Second Level
- 1:00 – 2:00 **New Robotic Technologies for the Calibration of Standards** – Girard Salon 1 & 2, Second Level  
**Ian Ciesniewski and Julian Luescher - METTLER TOLEDO**  
 With new technology comes new capability. With significant changes to the a line robotic comparators, and the new e line table-top robots, the modern mass laboratory will benefit from flexible solutions and maximum efficiency.
- 2:00 – 2:30 **Break** – Girard Foyer, Second Level
- 2:30 – 4:00 **Redefining the Kilogram and the Mole: Chemistry Perspective** – Girard Salon 1 & 2, Second Level  
**Juris Meija - NRC Canada**  
 Outlining the contributions of chemistry toward the new S.I. through the determination of Avogadro's Constant using the X-Ray Crystal Density method on near-perfect 1kg spheres of isotopically enriched Silicon.
- 4:00 – 4:30 **Wrap-Up and Q&A for Day 1**

## Program: Day 2

### Thursday, October 26th, 2017

- 8:00 – 8:30      **Arrivals & Networking** – Girard Salon 1 & 2, Second Level
- 8:30 – 10:00      **Re-definition of the Kilogram: The NRC's Work Toard 2018, and Beyond** – Girard Salon 1 & 2, Second Level  
**Matthew Brown – NRC, Ottawa, Canada**  
Matthew will discuss the NRC's work on uncertainties, and will report recent results, working with a Constant Pressure Comparator from METTLER TOLEDO that allows mass comparison to be performed at constant, atmospheric pressure. Matthew will also address the CRC's work on the redefinition of the kilogram. The kilogram will be redefined in 2018 as part of a global effort to realize the International System of Units (SI) in terms of invariant constants of nature.
- 10:00 – 10:15      **Break** – Girard Foyer, Second Level
- 10:15 – 11:45      **Realization and Dissemination of Mass at NIST in the age of the New SI** – Girard Salon 1 & 2, Second Level  
**Patrick Abbott – NIST, Gaithersburg, MD**  
The revised International System of Units (SI) will liberate the way mass is realized, as the kilogram will now be defined in terms of the Planck constant. This opens opportunities for uncertainty reduction in critical areas of the mass scale, such as below 1 kilogram. New instruments and new designs of existing instruments will enable more efficient dissemination of mass than ever before. In this talk I will present how NIST will realize and disseminate mass after the 2019 revision of the SI, and give a view of what this might look like in the decades to come.
- 11:45 – 12:00      **Wrap-Up and Q&A for Day 2**
- 12:00 – 1:00      **Lunch and Farewell** – Girard Salon 3, Second Level

## Hilton Woodland Hills/Los Angeles Floor Plans



[www.mt.com/na-metrology2017](http://www.mt.com/na-metrology2017)

For more information

### METTLER TOLEDO



USA  
1900 Polaris Parkway  
Columbus, Ohio 43240  
Tel. (800) METTLER  
Fax (614) 438-4518  
Internet: [www.mt.com](http://www.mt.com)



Canada  
2915 Argenta Road, Unit 6  
Mississauga, Ontario L5N 8G6  
Tel. (800) METTLER

Specifications subject to change without notice  
METTLER TOLEDO® is a registered trademark  
of Mettler-Toledo, LLC.

BAL1617LIT