



## by Kevin Rust, Section Coordinator

**Hosted By: Boston Scientific**  
**September 23, 2009**

The Twin Cities Section 1311 conducted its third meeting of the year on September 23, 2009. Our meeting was hosted by Boston Scientific and took place at their wonderful conference facility in Maple Grove, Minnesota. The meeting included five speakers, NCSLI 2009 conference summary, NCSLI BOD updates, a smattering of TV show trivia and concluded with numerous door prizes.

We had 107 attendees representing numerous companies and industries throughout the region. This was the second largest number of attendees for a Twin Cities section meeting in recent memory. We are very thankful for such an active and supportive NCSLI membership.

The Twin Cities section coordinator, Kevin Rust of MTS Systems Corporation, started the meeting with some initial introductions, welcoming everyone for attending and a quick round of 1970s TV show trivia. Next, Cory Otto, representing the Boston Scientific Metrology Laboratory, conducted a host presentation followed by an overview of Boston Scientific and the various roles and responsibilities of their metrology laboratory.

Our first speaker was Dilip Shah from  $E=mc^3$  Solutions who presented "Interpreting Instrument and Equipment Specifications." Dilip provided an overview and examples of measurement related terms such as accuracy, precision, and resolution. As Dilip noted, the wide variety of instrument specifications formats presents many calibration challenges. Practical examples of specification formats and proper interpretation techniques were also presented and discussed.

The second speaker was Gary Hobart from Hexagon Metrology who presented "Video Measurement Standards and Technology." Gary presented an introduction to the various aspects of *ISO 10360* and application for verifying the accuracy of a CMM. Additional insight was provided regarding the development of *ISO 10306* and its incorporation of aspects from *ASME B-89.4.1* and the German VDI/VDE specification. Gary summarized with an overview of the first collaborative standard (*ISO 10306-7*) to include and specialize on vision systems.

Our third speaker of the day was Jerry Messman from Stranaska who presented "Analytical Metrology." The role of Metrology in the ana-

lytic/chemical laboratory was certainly an eye opener to many of us in attendance. Jerry introduced us to the various applications of fundamental metrology practices in analytical, clinical, forensic, agriculture, food, fossil fuel and pharmaceutical sciences. In addition, the concepts of quality control, instrument calibration, method validation, proficiency testing, measurement uncertainty, measurement traceability and accreditation were presented with numerous examples. Although we may watch the various CSI television shows for entertainment, Jerry left many of us with new found appreciation for the role of metrology in analytical and chemical laboratories.

Terry Conder from 3M Corporate Metrology provided a summary of the NCSLI 2009 International Conference recently held in San Antonio and an update of recent NCSLI and Board of Directors meeting and activities.

After lunch, a little more TV trivia and a brief door prize session, it was time for our fourth speaker of the day. After an introduction to NAPT from Chuck Ellis, Carter Gay from NAPT presented "Proper Statistical Analysis of Inter-Laboratory Comparisons." Carter provided an in-depth review of the various statistical analysis tools utilized by NAPT to identify bad data versus outliers. The statistical techniques used to establishment proficiency testing reference values via reference laboratories or participant data were also presented. Carter also introduced many of us to the terms and concepts of "robust analysis," "weighted mean" and the "mean method."

Our fifth speaker was Lee Fletcher from The QC Group who presented "Geometric Dimensioning and Tolerancing (GD&T)." Lee introduced us to the concepts, terms and common symbols associated with GD&T on prints and associated dimensional documentation. The challenges and costs associated with the lack of adequate dimensioning, proper datum references and the use of incorrect dimensional terms and symbols were also presented and discussed.

Our meeting was concluded with a final round of TV show trivia, a few final announcements and the door prize finale. I wish to thank Boston Scientific for hosting our meeting, all speakers, numerous door prize contributors, and the entire Twin Cities NCSLI section membership for their continued support and my fellow Twin Cities steering committee members for making this another successful and very well attended Twin Cities section meeting. Our next section meeting is scheduled for February 4, 2010 in New Brighton, Minnesota.

[kevin.rust@mts.com](mailto:kevin.rust@mts.com)



1311 Twin Cities Section Meeting