

# Program

## Monday, May 23, 2011

**08:30 Registration**

**09:00-10:15 Opening Plenary**

*Greetings*

***The Benefits to Industry and Society of Improved Uncertainties for Calibration Services***

R. Davis, International Bureau of Weights and Measures (BIPM), France

***Warning: False Sense of Certainty from the Illusion of Precision in Measurements***

M. Brezis, Hadassah Medical Organization, Israel

***About NCSL International***

S. Sidney, NCSL International, South Africa

**10:15-10:45 Coffee break**

**10:45-12:30 Parallel Sessions**

### Hall A

#### Physical Measurements

**Chair:** Dr. Alex Lepek, Newton Metrology, Israel

***Buoyancy Effect and its Uncertainty***

D. Louvel, B. Baute, C. Barbier, M.D. Blanchin, M.C. Bonenfant, X. Dua, R. Dybiak, C. Lebranchu, M. Vandenhende, STP Pharma Pratiques, France

***Calculation of Expanded Uncertainties of Instrumental Neutron Activation Analysis Methods for the Measurement of Arsenic Levels in Shellfish***

A. Chatt, R. Acharya, Dalhousie University, Canada

***National Standard of Luminous Intensity of the Republic of Belarus. Colorimetric Facility***

O.N. Lysenok, S.W. Nikonenko, D.V. Scums, O.B. Tarasova, Belorussian State Institute of Metrology, Belarus

***How Depolarization and Incoherent Scattering Influence Results Obtained in Thin Film Metrology***

J. Jaglarz, Institute of Physics Cracow University of Technology, Poland

### Hall B

#### Measurement Quality Assurance

**Chair:** Dr. Dan Tholen, Dan Tholen Statistical Consulting, USA

**Keynote Lecture: *ISO/IEC 17043: Interpretation of Results and Their Use***

D. Tholen, Dan Tholen Statistical Consulting, USA

***Inter-laboratory Comparison Study of Stylus Instrument Calibration***

J. Buajarern, T. Somthong, A. Phuaknoi, A. Tonmueanwai, National Institute of Metrology, Thailand

***Consensus and Metrological Approaches in Proficiency Testing and a Problem of a Limited Number of Participants***

I. Kuselman, The National Physical Laboratory of Israel (INPL), Israel, A. Fajgelj, International Atomic Energy Agency (IAEA), Austria

***Interlaboratory Comparisons of Some of Transformer Oil Tests Between 19 Laboratories***

M. Grisaru, Israel Electric Corp., Israel

**12:30-13:30 Lunch**

## 13:30-15:15 Parallel Sessions

### Hall A

#### Legal Metrology

**Chair:** Dr. Alan Johnston, International Committee of Legal Metrology, Canada

**Keynote Lecture: *Increasingly Important Role of Metrology in Road Safety Law Enforcement***

A. Johnston, International Committee of Legal Metrology, Canada

***Traceability System for Breath-alcohol Measurements – A Review***

M. Epstein, The National Physical Laboratory of Israel (INPL), Israel

***Israeli Transport Regulation Regarding Alcohol Concentration by Breath Analyzes and Uncertainty Estimation***

E. Sharon, ISRAC - Israel Laboratory Accreditation Authority, Israel

***Legal Metrology***

M.A. Mbunda, Weights and Measures Agency (WMA), F.C. Kahimba, Sokoine University of Agriculture, Tanzania

***Calibration of Bulk Oil and Liquid Storage Tanks by Using Optical Reference Line Method***

I.J. Kisamo, Tanzania Bureau of Standards (TBS), Tanzania

### Hall B

#### Method Validation

**Chair:** Ety Feller, ISRAC - Israel Laboratory Accreditation Authority, Israel

***Integration of Standard Microbiological and Molecular Methods Beyond Regulatory Requirements in PIF Screening for Cronobacter Species***

S. Ohad, R. Breuer, Z. Dveyrin, E. Rorman, National Public Health Laboratory, Israel

***Why Should Testing and Calibration Laboratories Talk to Each Other?***

S. Sidney, National Laboratory Association, South Africa

***Testing Evaluation of Uncertainty Values of The Results in an Accredited Analytical Laboratory***

P. Kornhauser, B. Katz, P. K. Calibration & Consulting Labs, R. Sheinman, A. Lisenker, Public Health Laboratory, Israel

***Strategy Choice in Control of Measurements Stability***

V.I. Dvorkin, Russian Academy of Science, Russia

***Some Metrological Aspects of the Comparison Between Two Ordinal Measuring Systems***

E. Bashkansky, T. Gadrich, D. Knani, Ort Braude College, Israel

## 15:15-15:30 Coffee Break

## 15:30-16:30 Panel: Legal Metrology in Commemoration of Nir Gershoni and Amikam Levin

**Chair:** Dr. Orna Dreazen, Nextar Chempharma Solutions, Israel

### Participants:

**Alan Johnston**, President, International Committee of Legal Metrology, Canada

**David Kolker**, Lawyer, David Kolker and Associates, Israel

**Arie Neiger**, Lawyer, Arie Neiger Law Offices, Israel

**Yitzhak Kimchi**, Ministry of Industry, Trade and Labor, Israel

**Ety Feller**, General Manager, ISRAC - Israel Laboratory Accreditation Authority, Israel

**Steve Sidney**, Director, National Laboratory Association, South Africa

**Elazar Zadok**, Former Director of Division of Identification and Forensic Science of Israeli Police, Israel

## 16:30-17:15 Plenary

### ***How Legal Metrology Helps Countries Succeed in the Global Marketplace***

A. Johnston, International Committee of Legal Metrology, Canada

# Tuesday, May 24, 2011

## 08:30 Registration

## 09:00-10:00 Plenary

### ***Metrological Concepts Required for Food Safety and Quality Testing***

F. Ulberth, Institute for Reference Materials and Measurements of the European Commission  
Joint Research Centre, Belgium

## 10:00-10:30 Coffee break

## 10:30-12:15 Parallel Sessions

### Hall A

#### **Calibration Measurement Uncertainty**

**Chair:** Ilan Landesman, ISRAC - Israel  
Laboratory Accreditation Authority, Israel

#### ***Extending Recalibration Interval Estimates Based on the Number of Uses***

A. Lepek, Newton Metrology, Israel

#### ***Force Metrology at KEBS***

J.O. Bangi, Kenya Bureau of Standards,  
Kenya

#### ***Uncertainty at Comparison of the National Standard of Electric Capacitance***

T. Sasnouskaya, Belorussian State Institute  
of Metrology, Belarus

#### ***A Binary Balanced Bridge for Measuring Four-terminal Resistors***

Z.I. Zelikovskiy, International Society of  
Instrument Industry and Metrologists,  
Russia

#### ***The Challenge of Implementing the GUM and its Supplements - The View from Inside an Industrial Laboratory***

S. Sidney, National Laboratory Association,  
South Africa

### Hall B

#### **Measurement Uncertainty in Testing**

**Chair:** Dr. Ilya Kuselman, National Physical  
Laboratory of Israel (INPL), Israel

#### ***Uncertainty Evaluation and in House Method Validation of the Herbicide Iodosulfuron-Methyl-sodium in Water Samples by Using HPLC Analysis***

A. Drolc, A. Pintar, National Institute of  
Chemistry, Slovenia

#### ***Wastewater Treatment: Ranking of Coagulants Using Partial Order Theory***

E. Tzfati, M. Sein, A. Rubinov, A. Bick, Shenkar  
College of Engineering and Design, E.H.  
Cohen, Bar-Ilan University, Israel

#### ***Evaluation of Measurement Uncertainty in the Determination of Trace Levels of Uranium by Radiochemical Neutron Activation Analysis***

L. Benedik, Jožef Stefan Institute,  
U. Repinc, Municipality of Idrija, Slovenia

#### ***Losses of Cr Content in Plant Samples Using Digestion Procedures with Acids***

R. Jačimović, Jožef Stefan Institute, Slovenia,  
M.A.B.C. Menezes, CDTN/CNEN, Laboratory for  
Neutron Activation Analysis, Brazil, G.  
Kennedy, Ecole Polytechnique, Canada, P.  
Vermaercke, SCK-CEN, Belgian Nuclear  
Research Centre, Belgium

#### ***Substantiated Quantitative Criteria for a Measurement Uncertainty Evaluation***

D. Kisets, The National Physical Laboratory of  
Israel (INPL), Israel

## 12:15-12:45 Poster Session

## 12:45-13:45 Lunch

## 13:30-13:45 General Assembly of the Israeli Metrological Society (IMS)

## 13:45-15:30 Parallel Sessions

### Hall A

#### Validation of Calibration

**Chair:** Dr. Orna Dreazen, Nextar Chempharma Solutions, Israel

#### *Validation of Calibration Methods*

##### *What is Sufficient and Necessary?*

A. Lepek, Newton Metrology, O. Dreazen, Nextar Chempharma Solutions, Israel

#### *Validation of Calibration Methods*

D. Kruh, RAFAEL - Advanced Defense Systems, Israel

#### *Validation of Calibration Procedures in Accredited Laboratory*

P. Kornhauser, B. Katz, P. K. Calibration & Consulting Labs, Israel

#### *Expanding the Capability of the Metering Laboratory*

M. Shalomygin, I. Gueta, Israel Electric Corp., Israel

#### *ISRAC Policy on Validation of Calibration Methods*

I. Landesman, S. Jacobson, ISRAC - Israel Laboratory Accreditation Authority, Israel

### Hall B

#### Measurement Quality: Effect on Decision Making

**Chair:** Dr. Hilla Ben David, ISRAC - Israel Laboratory Accreditation Authority, Israel

#### *The Importance of INPL Time and Frequency Standard for Industry*

N. Goldovsky, The National Physical Laboratory of Israel (INPL), Israel

#### *Qualitative QC for Molecular Epidemiology Methods in the Mycobacterium Reference Lab*

P. J. Freidlin, D. Goldblatt, H. Kaidar-Shwartz, National Mycobacterium Reference Laboratory, Z. Dveyrin, E. Rorman, National Public Health Laboratory, Israel

#### *Out-of-specification Test Results in Evaluation of Long-term Stability Data of Drug Products*

I. Kuselman, National Physical Laboratory of Israel (INPL), I. Schumacher, IDF, Israel, F. Pennechi, National Institute of Metrological Research (INRIM), P. de Zorzi, National Environmental Protection Institute, Italy, C. Burns, Food and Drug Administration (FDA), USA, A. Fajgelj, International Atomic Energy Agency (IAEA), Austria

## 15:30-15:45 Coffee Break

## 15:45-16:45 Plenary

### *Proposed Changes to the International System of Units (SI): Motivations and Consequences*

R. Davis, International Bureau of Weights and Measures (BIPM), France

## Posters

### ***Some Metrological Aspects of Ordinal Data Treatment***

E. Bashkansky, T. Gadrich, Ort Braude College, Israel

### ***Some Metrological Aspects of Ordinal Measurements***

E. Bashkansky, T. Gadrich, Ort Braude College, Israel

### ***Basic Physical Units, Their Derivative Values and Calibration-Mathematical and Metrological Aspects***

O. Ben Lulu, Ort Braude College, B. Katz, P. K. Calibration & Consulting Labs

### ***Calibration of Length Parameters in Accredited Laboratory***

Z. Ben Shmuel, Ort Braude College, B. Katz, P. K. Calibration & Consulting Labs, Israel

### ***Ethanol as Internal Standard for Determination of Volatile Compounds in Spirit Drinks by Gas Chromatography***

S.V. Charapitsa, S.M. Bychkov, A.N. Kavalenka, N.V. Kulevich, N.M. Makoed, A.L. Mazanik, Research Institute for Nuclear Problems of Belarusian State University, Belarus, I. Jarmalaite, R. Golubevas, National Food and Veterinary Risk Assessment Institute, Lithuania

### ***A Monte Carlo Approach for Estimating Measurement Uncertainty Using Standard Spreadsheet Software***

G. Chew, T. Walczyk, National University of Singapore (NUS), Singapore

### ***A Modelling Approach to the Estimation of Analytical Measurement Uncertainty for Determination of Acetate in Vinegar by Using Ion Chromatography***

A. Drolc, A. Pintar, National Institute of Chemistry, Slovenia

### ***Calibration and Measurement Capabilities of the INPL Reference Standards of pH Value and Electrolytic Conductivity***

E. Kardash, The National Physical Laboratory of Israel (INPL), Israel

### ***Calibration and Measurement Capabilities of INPL in the Field of Mass Measurement***

E. Kiselgoof, I. Paperno, I. Victorov, System Advanced Laboratories, Israel

### ***Scarce Measurement Traceability in the Calibration of Length Standards, And the Way of Problem Solving***

D. Kisés, G. Tsirulnikov, The National Physical Laboratory of Israel (INPL), Israel

### ***Synthesis and Characterization of "Naked" Gold Nanoparticles***

G. Merga, N. Saucedo, Andrews University, L.C. Cass, J. Puthussery, D. Meisel, University of Notre Dame, USA

### ***A new Surface Plasmon Resonance Technique for Precision Measurements of Impurity Concentration and Thickness in Optically Transparent Thin Films***

O. Popov, System Advanced Laboratories, Israel

### ***Conformity Assessment in Radioactivity Measurements***

D. Riekstina, J. Berzins, O. Veveris, University of Latvia, Latvia

### ***Evidence Based Laboratory Medicine***

#### ***Do Doctors Use laboratory Results Prior to Treatment of Patients?***

A. Wekesa, Kenya Bureau of Standards, Kenya

### ***Improvement of Quality Infrastructure (QI) for Agricultural Products With Emphasis on Strengthening the Competency of Pesticide Residue Testing Laboratories***

C. Yafa, C. Cherdchu, P. Totarong, National Institute of Metrology (Thailand) (NIMT), Thailand