

# Symposium of Metrology 2004



## Second call for papers

October 25-27

Santiago de Querétaro, Qro., México  
Hotel Fiesta Americana

A decade working to strengthen the Mexican Metrology

### Technical sessions:

- Sensors and measurement systems
- Uncertainty evaluation
- Traceability
- Primary standards and high accuracy measurement systems
- New measurement methods
- Reference Materials
- Accreditation of Calibration and Testing Laboratories
- Others

### Additional Information:

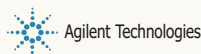
**Registration:** Erika Montaña Suárez  
Phone: +52 (442) 211 05 00 al 04, ext. 3013  
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Fax: +52 (442) 211 05 00 al 04, ext. 3012

**Chairman:** Roberto Arias Romero  
Phone: +52 (442) 211 05 71

**E-mail:** [simposio@cenam.mx](mailto:simposio@cenam.mx)

**Web page:** <http://www.cenam.mx>

### Sponsors



## Participation Options

Author

Attendee

Sponsor

### Presentation options

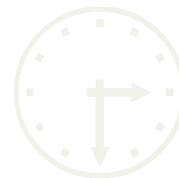
Oral Session

Poster Session

### Deadlines:

Submission of abstracts: 31st March, 2004

Submission of full papers: 16th June, 2004



### Abstract:

- **Size:** 100 to 200 words
- **Include:** Title of the paper, author's name and affiliation, phone, fax and e-mail details
- **Send it to:** [simposio@cenam.mx](mailto:simposio@cenam.mx), or register it at [www.cenam.mx/Simposio2004/Default.asp](http://www.cenam.mx/Simposio2004/Default.asp)

Papers acceptance will be subjected to a Technical Committee evaluation

## Technical Committee

- |   |  |  |
|---|--|--|
| • Alicia Pons Aglio<br>IFA - CSIC / Spain   | • Giorgio Moscati<br>Instituto de Física - USP / Brazil  | • Máximo Cargnelutti<br>ITESM - Campus Querétaro.                                    |
| • Arturo Orozco Santillán<br>CCADET - UNAM  | • Gregory Kyriazis<br>INMETRO / Brazil   | • Máximo López López<br>CINVESTAV - IPN  |
| • Benjamín Arroyo Ramírez<br>Instituto Tecnológico de Celaya  | • Héctor Laiz<br>INTI / Argentina  | • Miguel Tufiño Velázquez<br>Instituto Politécnico Nacional                          |
| • Daniel Slomovitz<br>UTE / Uruguay   | • Humberto Gómez Ruiz<br>Facultad de Química - UNAM  | • Miguel Viliesid Alonso<br>CENAM  |
| • David Ríos Jara<br>CIMAV  | • Ignacio Hernández Gutiérrez<br>CENAM   | • Oscar Olvera Silva<br>ITESM - Campus Querétaro                                     |
| • Edgar Méndez Lango<br>CENAM   | • Isaías Regalado Contreras<br>CIATEQ  | • Pablo Canalejo Cabrera<br>IBSEI  |
| • Eduardo Castillo Castañeda<br>Universidad Autónoma de Querétaro   | • Joaquín Valdés<br>INTI / Argentina   | • Paulo Couto<br>INMETRO / Brazil  |
| • Eduardo Tepichín Rodríguez<br>INAOE   | • Jorge Cogno<br>INTI / Argentina  | • Pedro Morales Puente<br>Instituto de Geología - UNAM                               |
| • Elisa Felicitas Arias<br>BIPM   | • José Luis Jurado Baizaval<br>CIDETEC   | • René D. Carranza López Padilla<br>CENAM  |
| • Enrique Fernández Fassnacht<br>Sub-Secretaría de Educación Superior e<br>Investigación Científica (SESIC) | • José Ramón Zeleny Vázquez<br>Mitutoyo Mexicana, S.A. de C.V.   | • Salvador Echeverría Villagómez<br>CENAM  |
| • Enrique Villa Diharce<br>CIMAT  | • Josefina de Gyves Marciniak<br>UNAM  | • Saúl López Silva<br>Universidad Autónoma de Guerrero                               |
| • Eugen Trapet<br>UNIMETRIK S.A. / Spain  | • Juan Angel Forastieri<br>INTI / Argentina  | • Sergio López Carmona<br>Agilent Technologies México                                |
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| • Fernando Mendoza Santoyo<br>CIO   | • Kazuto Kawakita<br>IPT / Brazil  | • Víctor Manuel Castaño<br>Centro de Física Aplicada y Tecnología<br>Avanzada - UNAM |
| • Fernando Motolinía Velázquez<br>CIDESI  | • Luis Efraín Regalado<br>Universidad de Sonora  | • Walter Bich<br>IMGC / Italy  |
| • Florencio Sánchez Silva<br>ESIME - Instituto Politécnico Nacional   | • Luis Omar Becerra Santiago<br>CENAM  | • Yoshito Mitani Nakanishi<br>CENAM  |
| • Gerardo Ruiz Botello<br>CCADET - UNAM   | • Luciana Scarioni Dallagata<br>FACYT / Venezuela  |  |

## Organizing Committee

### Information:

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### Chairman:

Roberto Arias Romero  
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## Preliminary Program

### Plenary sessions

- A decade of work to strengthen the Mexican Metrology  
*Dr. Héctor Nava Jaimes / General Director, Centro Nacional de Metrología (CENAM/Mexico)*
- The impact of metrology for the economic and social development  
*Dr. Arden Bement / Director, National Institute of Standards and Technology (NIST/USA)*
- Traceability of measurement results in industrial metrology  
*Prof Dr Michael Kuehne / Member of the Presidential Board of the Physikalisch Technische Bundesanstalt (PTB/Germany)*
- The importance of thermo physical properties of materials for industrial development  
*Dr. Akira Ono / Director, National Measurement Institute of Japan (NMIJ/Japan)*

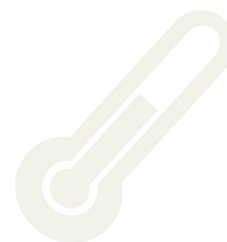
### Round tables

- Challenges and opportunities of development for the Mexican Metrology Community
- Evolving needs for metrology in trade, industry and society, and the role of the NMIs
- Perspectives of metrological development within CENAM

### Oral parallel sessions

### Poster session

### Exhibition



## Recovery Fee

### Authors and attendees:

**US \$ 425**

Fee includes proceedings, certificate of attendance, 3 lunches, coffee breaks and one Banquet ticket



### Sponsors:

**US \$ 1800**

Space for exhibition of equipment

**US \$ 720**

Space for exhibition of commercial poster

Fee includes certificate of attendance, proceedings, 3 lunches, coffee breaks and one Banquet ticket (all for one person), and the inclusion of company logo on promotion material.

**US \$ 220**

for additional person (two additional at maximum)

### Students:

**US \$ 160**

Fee includes: certificate of attendance, proceedings, 3 lunches, coffee breaks and one Banquet ticket

**Fees are valid until July 31, 2004**

## Payments

- **Cash**
- **Money transfer**

Our bank details will be provided opportunitly.



## List of topics

- |  |  |  |
|--|--|--|
| <p>1) Electromagnetic measurements<br/>a) DC voltage and current<br/>b) Low frequency measurements<br/>c) Radiofrequency and Microwaves<br/>d) Magnetism</p> <p>2) Time and frequency</p> <p>3) Temperature and Humidity<br/>a) Contact thermometry<br/>b) Pyrometry<br/>c) Humidity<br/>d) Thermal conductivity and heat transfer</p> <p>4) Optics and Radiometry<br/>a) Radiometry: detectors and sources<br/>b) Photometry<br/>c) Characterization of optical properties:<br/>Spectrophotometry, colour, polarimetry, etc.<br/>d) Fibre optics and optoelectronics<br/>e) Holographic methods</p> <p>5) Ionizing radiation</p> <p>6) Acoustic and vibration<br/>a) Acoustics<br/>b) Vibration</p> <p>7) Dimensional Measurements<br/>a) Primary standards and interferometry<br/>b) Length and shape<br/>c) Gage blocks, angle, roundness, etc.<br/>d) Coordinate Measuring Machines<br/>e) Roughness</p> | <p>8) Force and Pressure<br/>a) Force and Torque<br/>b) Pressure and Vacuum<br/>c) Hardness and Toughness</p> <p>9) Mass and density<br/>a) Mass<br/>b) Density</p> <p>10) Volume and Flow<br/>a) Liquid flow-rate<br/>b) Gas flow-rate<br/>c) Calibration of glassware<br/>d) Calibration of large vessels</p> <p>11) Viscosity and Rheology</p> <p>12) Metrology in Chemistry<br/>a) Primary methods<br/>b) Gas metrology<br/>c) Purity measurements</p> <p>13) Reference Materials<br/>a) Solutions<br/>b) Simple matrix<br/>c) Complex matrix<br/>d) Development of reference materials</p> <p>14) Reference Materials applications<br/>a) Food<br/>b) Biometrology<br/>c) Environment<br/>d) Geochemistry and ors</p> | <p>e) Raw materials<br/>f) Metallurgy<br/>g) Gas mixtures<br/>h) Agriculture</p> <p>15) Uncertainty in Measurements</p> <p>16) Statistic Process Control</p> <p>17) Validation of methods</p> <p>18) Quality Systems</p> <p>19) Standardization</p> <p>20) Accreditation</p> <p>21) Comparison and Proficiency testing</p> <p>22) Automation of Measuring Systems</p> <p>23) Image processing</p> <p>24) Legal Metrology and pattern approval of Measuring instruments</p> <p>25) Training in Metrology</p> <p>26) General Topics in Metrology</p> |
|--|--|--|

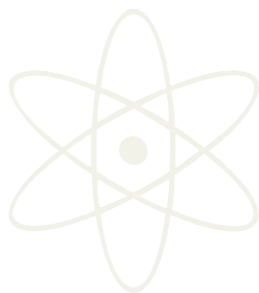


## Pre-registration form symposium of metrology 2004

**Send to:** Erika Montañó Suárez / Organizing Committee - Registration  
**Phone:** +52 (442) 211 05 00 al 04, ext. 3013  
**Direct:** +52 (442) 211 05 83  
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**Fax:** +52 (442) 215 3904

### I wish to participate as:

- Attendee  
 Author  
 Oral presentation  
 Poster



Topic: \_\_\_\_\_

Classification No.

See page 4 for classification scheme

Please attach copy of the abstract(oral presentation or poster)

- Sponsor  
 With space for exhibition  
 With space for poster

### My personal details are:

Name: \_\_\_\_\_

Company/Organization: \_\_\_\_\_

Address: \_\_\_\_\_

Zip/post code and city: \_\_\_\_\_ Country: \_\_\_\_\_

Telephone and Fax: \_\_\_\_\_ E-mail: \_\_\_\_\_

*At your convenience, you will be informed on the procedures to complete your registration.*