SnT2017 THEMES AND TOPICS

1. The Earth as a Complex System
   T1.1 Infrasound and Atmospheric Dynamics
   T1.2 Solid Earth Structure
   T1.3 Atmospheric and Subsurface Radionuclide Dispersion and Depletion
   T1.4 Hydroacoustics and Physical Properties of the Oceans
   T1.5 Civil, Scientific and Industrial Applications of IMS Data and IDC Products

2. Events and Nuclear Test Sites
   T2.1 Treaty-Relevant Events
   T2.2 Characterization of Events Through On-Site Inspection
   T2.3 Seismoacoustic Sources in Theory and Practice
   T2.4 Atmospheric Background of Radioxenon
   T2.5 Historical Data from Nuclear Test Monitoring

3. Advances in Sensors, Networks and Processing
   T3.1 Design of Sensor Systems and Advanced Sensor Technologies
   T3.2 Laboratories Including Mobile and Field Based Facilities
   T3.3 Remote Sensing, Satellite Imagery and Data Acquisition Platforms
   T3.4 Geophysical Methods for On-Site Inspection
   T3.5 Data Processing and Interpretation
   T3.6 Fusion of Data from Different Monitoring Technologies
   T3.7 Algorithms

4. Performance Optimization and Systems Engineering
   T4.1 Performance Optimization and Systems Engineering

5. Monitoring for Nuclear Explosions in a Global Context
   T5.1 Science in Support of Global Policy Decisions
   T5.4 Capacity Building, Education and Public Awareness

SnT2017 GOALS

- Enlarge the scientific community engaged in test-ban monitoring, including among young scientists
- Promote the wider scientific application of data that are used for test-ban verification
- Enhance the exchange of knowledge and ideas between the CTBTO and the broader scientific community
- Present to the scientific community the needs of nuclear test monitoring and verification
EXHIBITORS
MARMORSAAL, SEITENGALERIE
26–30 June 2017

- Baltic Scientific Instruments
- Canberra-Packard Central Europe GmbH
- Commissariat à l’Energie atomique et aux énergies alternatives (CEA), France
- Cegelc Defence
- F&J Specialty Products, Inc.
- Gempa GmbH
- General Dynamics Mission Systems
- Güralp Systems Limited
- Healvita Group GmbH
- Hualu Research Institute
- Hughes Network Systems LLC
- Instrumental Software Technologies, Inc. (ISTI)
- ORTEC/AMETEK
- Scienta Sensor Systems AB
- Seismo Wave
- Teledyne Brown Engineering, Inc.
- Trimble Inc.
- ZRF Ritec SIA
- CTBTO: Human Resources Services

CTBTO EXHIBITION OF ACTIVITIES, ACHIEVEMENTS AND NEEDS
FESTSAAL, TRABANTENSTUBE
26–30 June 2017

The CTBTO Exhibition is distinct from the scientific posters and was conceived in response to a request from the SnT2017 Scientific Programme Committee to address a perceived lack of focus on the verification needs of the CTBTO in previous SnT conferences. Selected activities and achievements were seen as an important context for the presentation of future scientific and technological needs under the CTBTO’s mission.

The exhibition is organized under the following sections:

- General
- Data Acquisition (including On-Site Inspection)
- Data Transmission, Storage and Format
- Data Processing and Synthesis
- Earth Characterization
- Interpretation
- Capability, Performance and Sustainment
- Sharing of Data and Knowledge

Much of the exhibition is presented as visual displays, but it also includes equipment, videos and short presentations on particular exhibits. One exhibit is dedicated to OSI data acquisition, and another (in the Trabantenstube) to the installation of the hydroacoustic stations of the International Monitoring System.
### MONDAY, 26 JUNE 2017, MORNING

<table>
<thead>
<tr>
<th>ZEREMONIENSAAL</th>
<th>GEHEIME RATSTUBE</th>
<th>RITTERSAAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>T3.3</strong> Remote Sensing, Satellite Imagery and Data Acquisition Platforms</td>
<td><strong>T2.2</strong> Characterization of Events Through On-Site Inspection</td>
<td>CTBTO Youth Group Orientation Session</td>
</tr>
<tr>
<td>Chairs: Yoshiyuki Kaneda, Randy Bell</td>
<td>Chairs: John [Jay] Zucca, John Walker, Gregor Malich</td>
<td>Speakers: Lassina Zerbo, Maria Chepurina, Ryan González</td>
</tr>
</tbody>
</table>

| 9:00 | **T3.3-01** Remote Sensing Radar interferometry and Precise Localization of the North Korean Nuclear Explosions | **T2.2-01** A Method for Applying Measurement Restrictions to a High-Purity Germanium Detector Within the Framework of On-Site Inspections |
| G. Hartmann, M. Frei, I. Grünberg | O. Aviv |

| 9:15 | **T3.3-02** Satellite-borne Video Processing and Reporting Techniques for Imagery Analysis | **T2.2-02** About Gas Fluxes in the Subsurface and Sampling: From Science to Technology |
| J. Rutkowski, P. d’Angelo, I. Niemeyer | E. Pili, S. Guillon, P.M. Adler |

| 9:30 | Poster Preview Session | **T2.2-03** Characterization of Events Through On-Site Inspection |
| | | N. de Silva |

| 9:45 | **T3.4-01** Atmospheric Transport Modelling and Radionuclide Analysis for the NPE 2015 Scenario | **T2.2-04** Express-Method for Identification of Underground Nuclear Explosion-Induced Radionuclide Seepage Area During On-Site Inspection |

| 10:00 | **T3.4-02** Investigating Options to Visualize the Technical Data Generated During an OSI | **T2.2-05** Gamma-Ray Imaging for Assessing Radiation Source Distributions in On-Site Inspection |
| J. Stevanovic, J. Palmer | S. Kreek, M. Burks |

| 10:15 | Poster Preview Session | **T2.3-05** Gamma-Ray Imaging for Assessing Radiation Source Distributions in On-Site Inspection |
| | | S. Kreek, M. Burks |

| 10:30 | **T2.5-01** Extrapolating Radionuclide Observables from the Platte Underground Nuclear Explosive Test | Discussion |
| B. Milbrath, J. Burnett | |

| 10:45 | Poster Preview Session | Poster Preview Session |
| | | |

### HOFBURG GALERIE, SEITENGALERIE, WINTERGARTEN

| 11:00 | COFFEE BREAK | |
| | | |

### ZEREMONIENSAAL | GEHEIME RATSTUBE | RITTERSAAL

| 11:30 | Panel Discussion “Mobile Devices as Geophysical Sensors: Promising Paths and Blind Alleys” | Panel Discussion “The International Monitoring System: Challenges from Installation Through Certification to Sustainment of this Unique Global Network” |
| Moderator: Sofi Esterhazy | Moderator: Nurcan Meral Özel |
| Panellists: Milton Garces, Stephen Myers, Paul Richards | Panellists: Helena Berglund, Naima Friha, Michelle Grobbelaar, Zeinabou Mindaoudou Souley |

### HOFBURG GALERIE, SEITENGALERIE, RITTERSAAL

| 13:00 | LUNCH | |
| | | |

Eligible for the Young Scientist Award.
**MONDAY, 26 JUNE 2017, AFTERNOON**

<table>
<thead>
<tr>
<th>T2.4</th>
<th>Atmospheric Background of Radioxenon</th>
<th>T3.4</th>
<th>Geophysical Methods Applied to On-Site Inspection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chairs: Anders Ringbom, Romano Plenteda</td>
<td>Chairs: John (Jay) Zucca, Peter Labak</td>
<td><strong>Workshop:</strong> “Best Practices for Social Media Advocacy”</td>
<td></td>
</tr>
</tbody>
</table>

14:00

<table>
<thead>
<tr>
<th>T2.4-01</th>
<th>Identifying Civil Xe-Emissions: From Source to Receptor</th>
<th>T3.4-01</th>
<th>Accurate and Efficient Viscoelastic Finite-difference Modelling for Analysis of Seismic Wavefields Applied to On-Site Inspection</th>
</tr>
</thead>
</table>

14:15

<table>
<thead>
<tr>
<th>T2.4-02</th>
<th>PNNL-4: Source Term Analysis of Xenon [STAX] – Exploring Methods for Understanding Radioxenon Civilian Source Terms</th>
<th>T3.4-02</th>
<th>Exciting Cavities: Understanding the Seismic Wave Propagation Inside and Around an Underground Cavity</th>
</tr>
</thead>
<tbody>
<tr>
<td>J. Friese, L. Metz, C. Doll, T. Bowyer</td>
<td>S. Esterhazy, F.M. Schneider, I. Perugia, G. Bokelmann</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

14:30

<table>
<thead>
<tr>
<th>T2.4-03</th>
<th>Seasonal Variability of Xe-133 Atmospheric Background: Characterization and Implications for the International Monitoring System of the Comprehensive Nuclear-Test-Ban Treaty</th>
<th>T3.4-03</th>
<th>New Insights into the Dead Sea Transform Fault Seismicity Gained from the IFE2014 Seismological Recordings</th>
</tr>
</thead>
</table>

14:45 Discussion

15:00 Poster Preview Session

<table>
<thead>
<tr>
<th>T2.3</th>
<th>Seismoacoustic Sources in Theory and Practice</th>
<th>T3.1</th>
<th>Design of Sensor Systems and Advanced Sensor Technologies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chairs: Paul Richards, Robert Pearce</td>
<td>Chairs: Ricardo Sagarrazu, Julien Marty, Yuri Starovoit</td>
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</table>

15:15 Poster Preview Session

<table>
<thead>
<tr>
<th>T3.1-04</th>
<th>Strategies for Recording the Full Seismic Wavefield</th>
<th>T3.1-02</th>
<th>New Optical Microbarometer</th>
</tr>
</thead>
</table>

15:30 Poster Preview Session
TUESDAY, 27 JUNE 2017, MORNING

HOFBURG GALERIE, SEITENGALERIE, WINTERGARTEN

8:00
COFFEE

ZEREMONIENSAAL

10:00
HIGH LEVEL OPENING OF THE CTBT: SCIENCE AND TECHNOLOGY 2017 CONFERENCE

Introduction
Sanam Shantyaei, SnT2017 Moderator (France 24)

CTBTO Welcome and Opening Remarks
Lassina Zerbo, CTBTO Executive Secretary
Michael Linhart, Secretary-General for Foreign Affairs of the Federal Ministry for Europe, Integration and Foreign Affairs, Austria

Keynote Addresses
Princess Sumaya of Jordan, President of the Royal Scientific Society of Jordan
Maria Candida Pereira Teixeira, Minister for Science and Technology, Angola
Pascale Ultré Guérard, National Centre for Space Studies, France

Film on the installation of hydroacoustic station HA04, Crozet Islands (France)

Live stream of High Level Opening from the Zeremoniensaal

12:00
Panel Discussion: "Seizing Opportunities and Overcoming Challenges: The CTBT’s Relevance in a Dynamic Global Context"

Moderator: Sanam Shantyaei, France 24
Panellists: José Luis Cancola, Undersecretary of Foreign Affairs, Uruguay
Grigory Berdennikov, Ambassador at large, Russian Federation
William Potter, Sam Nunn and Richard Lugar Professor of Nonproliferation Studies, Monterey Institute of International Studies, USA

HOFBURG GALERIE, SEITENGALERIE

13:00
RECEPTION AND LUNCH
### ZEREMONIENSAAL

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Chair(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15:00</td>
<td><strong>T2.1 Treaty-Relevant Events</strong></td>
<td>Paul Richards, Ronan LeBras</td>
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### GEHEIME RATSTUBE

<table>
<thead>
<tr>
<th>Time</th>
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<th>Chair(s)</th>
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<tbody>
<tr>
<td>15:00</td>
<td><strong>T3.1 Design of Sensor Systems and Advanced Sensor Technologies (cont.)</strong></td>
<td>Ricardo Sagarzazu, Julien Marty, Yuri Starovoitov</td>
</tr>
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### RITTERSAAL

<table>
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<tr>
<th>Time</th>
<th>Session</th>
<th>Chair(s)</th>
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<tbody>
<tr>
<td>15:00</td>
<td><strong>T1.5 Civil, Scientific and Industrial Applications of IMS Data and IDC Products</strong></td>
<td>Alik Ismail-Zade, Elena Tomuta</td>
</tr>
</tbody>
</table>

### TUESDAY, 27 JUNE 2017, AFTERNOON

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Chair(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15:00</td>
<td><strong>T3.1-03 Performance of Multi-Parameter Borehole Instrumentation System (Marsite) C. Guralp, D. Ozel, S. Tunc</strong></td>
<td></td>
</tr>
<tr>
<td>15:15</td>
<td><strong>T2.1-03 Constraining the Explosive Nature of the DPRK Nuclear Events at Regional Scale Using Moment Tensor Inversions and MSVMAX</strong></td>
<td>A. Guilhem Trilla, Y. Cano</td>
</tr>
<tr>
<td>15:30</td>
<td><strong>T2.1-05 Detection and Discrimination of Small Earthquakes and Explosions around North Korean Nuclear Test Site E. Jo, Y. Roo, W. Kim</strong></td>
<td></td>
</tr>
<tr>
<td>15:30</td>
<td><strong>T3.1-07 The SAUNA III Project A. Ringbom, M. Aldener, A. Axelson, T. Fritioff, J. Kastlander, A. Mörttell, H. Olsson</strong></td>
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<tr>
<td>15:45</td>
<td><strong>Discussion</strong></td>
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<td>15:45</td>
<td><strong>Discussion</strong></td>
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<tr>
<td>16:00</td>
<td><strong>T2.1-06 Estimation of NK09 and NK13 Source Time Functions and Yields Directly from Seismograms A. Zolgowski</strong></td>
<td></td>
</tr>
<tr>
<td>16:00</td>
<td><strong>T3.1-04 SCATSS Gamma Imager for CTBT On-Site Inspection P. Saull, L. Sinclair, A. MacLeod, J. Hovgaard, B. Krupsky, P. Drouin, A. McCann, H. Seyward, D. Waller, L. Erhardt</strong></td>
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<tr>
<td>16:15</td>
<td><strong>T2.1-010 Seismo-Acoustic Analyses of the DPRK Underground Nuclear Tests for the Estimation of Source Depth J. Resink, G. Averbuch, P. Smets, L. Evers</strong></td>
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<tr>
<td>16:30</td>
<td><strong>Discussion</strong></td>
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<tr>
<td>16:45</td>
<td><strong>Poster Preview Session</strong></td>
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### HOFBURG GALERIE, SEITENGALERIE, WINTERGARTEN

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<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>17:00</td>
<td><strong>Coffee Break</strong></td>
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<tr>
<td>17:30</td>
<td>Workshops: &quot;Effective Communication Skills&quot;</td>
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<tr>
<td>18:00</td>
<td><strong>Radionuclide Analysis Demonstration</strong></td>
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<td>19:45</td>
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### RITTERSAAL

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<tbody>
<tr>
<td>17:00</td>
<td>Poster Session</td>
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<tr>
<td>17:30</td>
<td>Festsaal: T1.5, T3.1</td>
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<tr>
<td>18:00</td>
<td>Wintergarten: T2.1</td>
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<tr>
<td>Time</td>
<td>Session</td>
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<tr>
<td>9:00</td>
<td>T2.1 Treaty-Relevant Events (cont.) Chairs: Paul Richards, Ronan LeBras</td>
</tr>
<tr>
<td>9:30</td>
<td>T2.1-O11 Source Array Analysis for Accurate Relative Event Location at the North Korea Nuclear Test Site Chairs: S.J. Gibbons, T. Kværna, S.P. Nåsholm, S. Mykkelven</td>
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<tr>
<td>9:45</td>
<td>Discussion</td>
</tr>
<tr>
<td>10:00</td>
<td>T2.1-O2 Analyses of Regional Seismic and Infrasound Data from Five North Korean Nuclear Explosions Chairs: J. Park, I. Che, C. Hayward, B. Stump</td>
</tr>
<tr>
<td>10:15</td>
<td>T2.1-O4 CTBTO Response to an Underwater or Surface Test in International Waters Chairs: G. Moore</td>
</tr>
<tr>
<td>10:45</td>
<td>Discussion</td>
</tr>
<tr>
<td>11:00</td>
<td>T1.4-O3 Modular Design Architecture of DONET Sea-Floor Observatory Network Chairs: Y. Kaneda, K. Kawaguchi</td>
</tr>
<tr>
<td>11:00</td>
<td>Poster Preview Session</td>
</tr>
<tr>
<td>11:00</td>
<td>COFFEE BREAK</td>
</tr>
<tr>
<td>13:00</td>
<td>LUNCH</td>
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**HOFBURG GALERIE, SEITENGALERIE, WINTERGARTEN**

**ZEREMONIENSAAL**

**HOFBURG GALERIE, SEITENGALERIE**

**LUNCH**
<table>
<thead>
<tr>
<th>Time</th>
<th>Location</th>
<th>Session Title</th>
<th>Chair/Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>14:00</td>
<td>ZEREMONIENSAAL</td>
<td><strong>T3.7 Algorithm</strong>&lt;br&gt;<strong>T3.7-01</strong> Enhancements to the CTBTO IDC Radionuclide Processing Pipeline for Particulate Samples Achieving Significant Improvement of Automatic Products <strong>T3.7-02</strong> Lg-Wave Cross Correlation Applied to Detection and Location of Events in High-Seismicity Regions of Mainland East Asia</td>
<td>H. Gheddou, M. Kalinowski, E. Tomuta D.P. Schaff, M. Slinkard, A. Sundermier, S. Heck, P.G. Richards, C.J. Young</td>
</tr>
<tr>
<td>14:15</td>
<td>GEHEIME RATSTUBE</td>
<td><strong>T1.1 Infrasound and Atmospheric Dynamics</strong>&lt;br&gt;<strong>T1.1-04</strong> IMS Infrasound Network: Status and State-of-the-Art Design <strong>T1.1-06</strong> Methods for Characterizing Meteors from Infrasound Signals</td>
<td>Elisabeth Blanc, Pierrick Mialle C. Haynes, C. Millet</td>
</tr>
<tr>
<td>14:30</td>
<td>RITERSAAL</td>
<td><strong>T1.1-05</strong> Listening to Glacial Infrasound in Northwestern Greenland</td>
<td>L. Evens, P. Smets</td>
</tr>
<tr>
<td>14:45</td>
<td>ZEREMONIENSAAL</td>
<td><strong>T1.5 Data Processing and Interpretation</strong>&lt;br&gt;<strong>T1.5-02</strong> Beryllium and Xenon Time Series Analysis: A New Methodological Approach for Atmospheric Transport Modelling at Small, Synoptic and Global Scales</td>
<td>Gerard Rambolamanana, Gerhard Graham W. Plastino, S. Bianchi, A. Longo</td>
</tr>
<tr>
<td>15:00</td>
<td>WINTERGARTEN, FESTSAAL</td>
<td><strong>T3.5-08</strong> Sentry: A Proposed Platform for Analysis of International Monitoring System Radionuclide Data Sets</td>
<td>J.J. McIntyre, T. Suckow, M. Keillor, N. Mileson, T. Stavenger</td>
</tr>
<tr>
<td>15:15</td>
<td>HOFBURG GALERIE, SEITENGALERIE, WINTERGARTEN</td>
<td>Discussion</td>
<td></td>
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<tr>
<td>15:30</td>
<td>HOFBURG GALERIE, SEITENGALERIE</td>
<td>Poster Preview Session</td>
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<td>L. Evens, P. Smets</td>
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**WEDNESDAY, 28 JUNE 2017, AFTERNOON**

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**Panel Discussion:** "Training, Education and Public Advocacy for the CTBT: The Role of Academia in Securing the Treaty’s Entry into Force and Universalization"  
Moderator: William Potter  
Panellists: Duyeon Kim, Allen Sens, Sahil Shah, Jo-Ansie van Wyck, Matthew Yedlin

**Poster Session Festsaal:** T1.1, T3.5, T3.7, T5.4  
Wintergarten: T1.1

**Poster Session Wintergarten:** T1.4, T3.7, T5.5

**CTBTO Youth Group Panel Discussions:**  
"Nuclear Testing and Use"  
Moderator: Kyle Pilutti  
"The CTBT as a Confidence Building Measure"  
Moderator: Rizwan Asghar  
"Advocacy and Outreach"  
Moderator: Aditi Malhotra

**CTBTO Youth Group Panel Discussions:**  
"Nuclear Testing and Use"  
Moderator: Kyle Pilutti  
"The CTBT as a Confidence Building Measure"  
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"Advocacy and Outreach"  
Moderator: Aditi Malhotra
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</tr>
</thead>
<tbody>
<tr>
<td>9:00</td>
<td><strong>T3.5-01</strong> An Approach to Radionuclide Time Series Reconstruction Based on Autoregressive Analysis</td>
<td>GEHEIME RATSTUBE</td>
<td>M. Begnaud, D. Anderson, W.S. Phillips, R. Brogan, R. Tibi, C.J. Young, G. Benito Diaz, J. Blázquez, J.C. Sáez, J. Guirriones</td>
</tr>
<tr>
<td>9:15</td>
<td><strong>T3.5-06</strong> Optimizing the Chances for Detecting Nuclear Test Signatures of Prompt and Early Releases Using Radiocarbon Isotopic Ratios</td>
<td>GEHEIME RATSTUBE</td>
<td>E. Gordon, M. Kalinowski, H. Ghedou, J. Kusmierz-Michulec, B. Liu, M. Schoppper</td>
</tr>
<tr>
<td>9:30</td>
<td><strong>T3.5-04</strong> Integrating OSI Data into an Interactive 3D Environment to Aid Inspection Activities</td>
<td>GEHEIME RATSTUBE</td>
<td>J. Palmer, J. Stevanovic</td>
</tr>
<tr>
<td>9:45</td>
<td>Discussion</td>
<td>FESTSAAL</td>
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<tr>
<td>10:00</td>
<td><strong>T3.5-03</strong> Initial Evaluations of Signal-Based Bayesian Seismic Monitoring (SIGVISA)</td>
<td>FESTSAAL</td>
<td>D. Moore, M. Stephen, M. Kevin, R. Stuart</td>
</tr>
<tr>
<td>10:15</td>
<td><strong>T3.5-05</strong> New Metrics Developed for Our Complex Cepstrum Depth Program</td>
<td>FESTSAAL</td>
<td>L. Keyson, M. Templeton</td>
</tr>
<tr>
<td>10:30</td>
<td><strong>T3.5-01</strong> Toward a Joint Array and Polarization Processing from IMS 3-Component Stations and Arrays: Seismic Wavefield Polarization and Its Spatial Coherency</td>
<td>FESTSAAL</td>
<td>C. Labonne, D. Sébe, S. Gaffet, F. Schindele</td>
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<tr>
<td>10:45</td>
<td>Discussion</td>
<td>FESTSAAL</td>
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<tr>
<td>11:00</td>
<td><strong>T1.1-02</strong> Civilian Application of the Infrasound IMS Data: Study of the Temperature and Wind Velocity Vertical Profiles in the Atmosphere</td>
<td>GEHEIME RATSTUBE</td>
<td>S. Kulichkov, I. Chunchuzov, O. Popov, E. Golikova, P. Mialle, E. Blanc, A. Le Pichon, L. Evers, L. Ceranna</td>
</tr>
<tr>
<td>11:15</td>
<td><strong>T3.5-01</strong> Bayesian Calibration of Ground-Truth Events from Stochastic Models</td>
<td>GEHEIME RATSTUBE</td>
<td>C. Millet, M. Bertin, J. Vergoz, P. Mialle</td>
</tr>
<tr>
<td>11:30</td>
<td><strong>T4.1-04</strong> Creating a 'Digital Twin' for Use in System Design and Support</td>
<td>GEHEIME RATSTUBE</td>
<td>J. Sharp</td>
</tr>
<tr>
<td>11:45</td>
<td><strong>T4.1-03</strong> Cost Reduction in Operation and Maintenance of IMS Stations (I532 and P524)</td>
<td>GEHEIME RATSTUBE</td>
<td>J.D. Akech</td>
</tr>
<tr>
<td>12:00</td>
<td><strong>T4.1-02</strong> Assessing the Consistency, Quality and Completeness of the Reviewed Event Bulletin with Waveform Cross Correlation</td>
<td>GEHEIME RATSTUBE</td>
<td>I. Kitev, M. Rozhkov</td>
</tr>
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<td>12:30</td>
<td><strong>T4.1-01A Different Approach to Data Availability:</strong> It’s More Than Just a Performance Metric!</td>
<td>GEHEIME RATSTUBE</td>
<td>S. Poindexter, D. Kalius, R. Martin</td>
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**THURSDAY, 29 JUNE 2017, MORNING**

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<td><strong>T1.1</strong> Infrasound and Atmospheric Dynamics [cont.]</td>
<td>HOFBURG GALERIE</td>
<td>Elisabeth Blanc, Pierrick Mialle</td>
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<td>11:15</td>
<td><strong>T1.1-01</strong> Performance Optimization and Systems Engineering</td>
<td>HOFBURG GALERIE</td>
<td>Tim Ahern, David Jepsen, Edwin Dindi, N. Mileson, T. Stavenger</td>
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<td>11:45</td>
<td><strong>T4.1-06</strong> Quality Assurance of Ground Motion Data Using the IRIS MUSTANG Analytics System</td>
<td>HOFBURG GALERIE</td>
<td>T. Ahern, R. Casey, J. Callahan, G. Sharer, L. Keyson, M. Templeton</td>
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<td>12:00</td>
<td><strong>T4.1-05</strong> Near Real Time Data Dissemination and Warehousing Protocol</td>
<td>HOFBURG GALERIE</td>
<td>S.M.A. Shah</td>
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**HOFBURG GALERIE, SEITENGALERIE, WINTERGARTEN**

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<td>11:00</td>
<td><strong>ZEREMONIENSAAL</strong> Panel Discussion &quot;Processing and Analysis of Seismic Aftershock Sequences: Protecting Operational Performance in the IDC&quot;</td>
<td>RITTERSAAL</td>
<td>John (Jay) Zucca, Ivan Kitov, Tormod Kvaerna, Paul Richards, Megan Slinkard</td>
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<td>11:30</td>
<td><strong>ZEREMONIENSAAL</strong> Panel Discussion &quot;Uncertainty Measurement in Atmospheric Transport Modelling and Atmospheric Dynamics&quot;</td>
<td>RITTERSAAL</td>
<td>Julien Marty, Elisabeth Blanc, Jolanta Kusmierz-Michulec, Christian Maurer, Mark Rodwell, Petra Seibert</td>
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**COFFEE BREAK**

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**HOFBURG GALERIE, SEITENGALERIE**
**THURSDAY, 29 JUNE 2017, AFTERNOON**

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<tr>
<td><strong>T3.5</strong> Data Processing and Interpretation (cont.)</td>
<td><strong>T3.2</strong> Laboratories Including Mobile and Field-Based Facilities</td>
<td><strong>T5.1</strong> Science in Support of Global Policy Decisions</td>
</tr>
<tr>
<td>Chairs: Gerard Rambolamanana, Gerhard Graham</td>
<td>Chairs: Yoshiyuki Kaneda, Xavier Blanchard</td>
<td>Chairs: Christopher Timperley, Gustavo Haquin Gerade</td>
</tr>
<tr>
<td>14:00 <strong>T3.5-09</strong> Strategies for Coping with Large Aftershock Sequences</td>
<td><strong>T3.2-02</strong> Mobile Sampling and Measuring Complex &quot;SLARS&quot;</td>
<td><strong>T5.1-01</strong> Bringing Scientific Insights into Disarmament Policy: Science Advice at the Organisation for the Prohibition of Chemical Weapons</td>
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<td>T. Kvaerna, S.J. Gibbons</td>
<td>S. Pakhomov</td>
<td>J. Forman</td>
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<td><strong>T3.5-09</strong> The Selection and Preparation of Waveform Templates for Cross-Correlation Detection of Seismic Events</td>
<td><strong>T3.2-01</strong> Mobile Laboratory for Noble Gases Analysis in Atmospheric Air</td>
<td><strong>T5.1-02</strong> Comparative Roles of Global Verification and On-Site Verification</td>
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<td>S. Sergeev, I. Kitov, K. Sergeev</td>
<td>Y. Dubasov, V. Golubev, A. Kamentsev, S. Pakhomov</td>
<td>N. de Silva</td>
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<td><strong>T3.5-07</strong> Seismic Event Bulletin Construction for a Global Sparse Network Using Waveform Correlation</td>
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<td>S. Ballard, A. Gonzales, A. Encarnacao, C.J. Young, R. Tibi, R. Brogan</td>
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<td><strong>Posten Preview Session</strong></td>
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<td><strong>T1.2</strong> Solid Earth Structure</td>
<td><strong>T1.3</strong> Atmospheric and Subsurface Radionuclide Dispersion and Depletion</td>
<td><strong>T1.1-02</strong> 2nd ATM Challenge 2016</td>
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<td>15:00</td>
<td><strong>T1.2-01</strong> Developing and Validating Path-Dependent Uncertainty Estimates for Use with the Regional Seismic Travel Time (RSTT) Model</td>
<td><strong>T1.3-01</strong> Estimate of the Lithospheric Structure in the Northwest South America from Receiver Functions Analysis</td>
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<td><strong>T1.2-02</strong> Estimate of the Lithospheric Structure in the Northwest South America from Receiver Functions Analysis</td>
<td><strong>T1.3-08</strong> The Use of Argon-37 Measurements as a Coincident Signature with Radioxenon and in High Background Environments in the International Monitoring System</td>
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**HOFBURG GALERIE, SEITENGALERIE, WINTERGARTEN**

| 16:00 | **COFFEE BREAK** | Workshop: Writing for Media Outlets/Op-eds and Letters to the Editor |
| 16:30 | **Waveform Analysis Demonstration** | Poster Session |
| 17:30 | **Waveform Analysis Demonstration** | Festsaal: T1.2; T3.2; T4.1; T5.1 Wintergarten: T1.3 |
| 19:45 | **Waveform Analysis Demonstration** | **Posten Preview Session** |
### FRIDAY, 30 JUNE 2017, AFTERNOON

#### ZEREMONIENSAAL

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<td>Panel Discussion: &quot;Utilizing Monitoring Technologies for Global Development: Exploring Potential Applications of IMS data to Support the Sustainable Development Goals, the Paris Climate Agreement, and Disaster Risk Reduction&quot;</td>
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<tr>
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<td>Moderator: Patrick Grenard</td>
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<td>Opening Address: José Fidel Santana Núñez, Deputy Minister of Science, Technology and Environment, Cuba</td>
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<td>Panellists: Abel Adelakun Ayoko, Bruce Howe, Yoshiyuki Kaneda, Gérard Rambolamanana</td>
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Posters: T2.2, T2.3, T2.4, T2.5, T3.3, T3.4, T3.6 FESTSAAL AND WINTERGARTEN

Poster Session: Monday, 26 June 2017, 16:00-17:30
Posters displayed Monday to Friday inclusive

T2.2 Characterization of Events Through On-Site Inspection - FESTSAAL
Chairs: John (Jay) Zucca, John Walker, Gregor Malich

T2.2-P1 A Standardized and Accurate Sampling Device for On-Site Inspection and Verification Purposes after a Nuclear Incident
A. Lee Zhi Yi, T. Arsenio, M. Lionel

T2.2-P2 Analytical Procedures Developed by the IAEA’s ALMERA Network Applicable to the Characterization of Legacy Nuclear Test Sites
A. Pilzoi, I. Ovath, S. Tarjan, M. Groening, D. Osborn

T2.2-P3 Delayed Telltale Signature of an Underground Nuclear Explosion
C. Carrigan, Y. Sun, M. Simpson

T2.2-P4 Determining Mechanisms of Ground and Surface Waters at “Balapan” Site of Semipalatinsk Test Site
M. Aktayev, S. Lukashenko, O. Lyakhova, A. Aidarkhanov

T2.2-P5 Geophysical Imaging of an Uncollapsed Nuclear Explosive Test
R. Abbott, E. Matzel, C. Rowe, C. Gammans, J. Hampshire II, P. Eick, L. Worthington, R. White, R. Keegan, P. Lee

T2.2-P6 Measurement of Radioargon and Radioxenon in Soil Gas
M. Aldener, T. Fritioff, J. Kastlander, L. Raghoo, R. Purtschert

T2.2-P7 Measurements of Ar-37 Backgrounds at the Nevada National Security Site
J.J. McIntyre

T2.2-P8 On-Site Carbon Dioxide and Stable Isotopologues Measurement to Support OSI Subsurface Gas Sampling
A. Rizzo, C. Teloli, C. Vaccaro, P. Bartolomei, S. Salvi, R. Lorenzelli

T2.2-P9 PNW-2: On-Site Inspection Capabilities – Examination of Laboratory Detector Response
J. Friese, B. Pierson

T2.2-P10 Revisiting the On-site Inspection (OSI) Concept of Operations in Light of Integrated Field Exercise 2014 (IFE14) and Inspection Team Functionality
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