

# **CTBT: Science and Technology 2017 Conference**

**Monday, June 26, 2017 - Friday, June 30, 2017**

## **Scientific Program**

# **1. The Earth as a complex system**

1.1 Infrasound and Atmospheric Dynamics

1.2 Solid Earth Structure

1.3 Atmospheric and Subsurface Radionuclide Dispersion and Depletion

1.4 Hydroacoustics and Physical Properties of the Oceans

1.5 Civil, Scientific and Industrial Applications of IMS data and IDC Products

# **2. Events and Nuclear Test Sites**

2.1 Treaty-Relevant Events

2.2 Characterization of Events Through On-Site Inspection

2.3 Seismoacoustic Sources in Theory and Practice

2.4 Atmospheric Background of Radioxenon

2.5 Historical Data from Nuclear Test Monitoring

# **3. Advances in sensors, networks and processing**

3.1 Design of Sensor Systems and Advanced Sensor Technologies

3.2 Laboratories Including Mobile and Field-Based Facilities

3.3 Remote Sensing, Satellite Imagery and Data Acquisition Platforms

3.4 Geophysical Methods Applied to On-Site Inspection

3.5 Data Processing and Interpretation

3.6 Fusion of Data from Different Monitoring Technologies

3.7 Algorithms

## **4. Performance Optimization and Systems Engineering**

4.1 Performance Optimization and Systems Engineering

4.2 Operations Research and Systems Analysis

4.3 Logistics and Lifecycle Management

4.4 Quality Management and Business Process Optimization in an Operational Environment

4.5 Network Optimization and Error Analysis

## **5. Monitoring for Nuclear Explosions in a Global Context**

5.1 Science in Support of Global Policy Decisions

5.2 Science in Support of International Treaties and Sustainable Development Goals

5.3 Comparative Roles of Global Verification and On-Site Verification

5.4 Capacity Building, Education and Public Awareness