



ACCADEMIA NAZIONALE DEI LINCEI



EUROPEAN COMMISSION

XIX EDOARDO AMALDI CONFERENCE

International Cooperation for Enhancing Nuclear Safety, Security, Safeguards and Non-proliferation

ROME, 30 - 31 MARCH 2015

PRESENTATION OF THE CONFERENCE

The XIX Edoardo Amaldi Conference - ***International Cooperation for Enhancing Nuclear Safety, Security, Safeguards and Non-proliferation*** - is being organized by the Accademia Nazionale dei Lincei and the European Commission – Directorate-General Joint Research Centre (DG JRC), under the patronage of the Italian Ministry of Foreign Affairs and the support of the European Commission – Directorate-General for International Cooperation and Development (DG DEVCO). The two-day Conference will provide an important forum for experts and scientists to discuss different approaches and promote progress towards enhanced nuclear safety, security, safeguards and non-proliferation.

Participation in the Conference is by invitation only.

The programme of the Conference is comprised of two sessions:

- Session I will address the political, institutional and legal dimension of “3S” (safety, security and safeguards) and non-proliferation. Presentations will mainly focus on International Nuclear Safety, Security, Safeguards, Non-proliferation Regulation Systems and the Nuclear Test Ban Treaty, addressing current challenges and attempting to identify possible solutions and future improvements;
- Session II will include scientific developments contributing to increased effectiveness in the implementation of international regimes, particularly in critical areas, technology foresight, and the ongoing evaluation of current capabilities.

In addition to the plenary sessions, the Conference will consist of two final panels. Participants will include eminent scientists, as well as diplomats and policy makers working on the build-up and maintenance of the verification regime and on progress towards a nuclear-weapon-free world.

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ORGANIZING INSTITUTIONS

Founded in 1603, the **Accademia Nazionale dei Lincei** is the world's oldest science academy and included Galileo Galilei among its first members. The Accademia Nazionale dei Lincei is an autonomous organisation within the sphere of the Italian Ministry of Cultural Heritage and it is considered the highest Italian cultural institution. The Academy acts as scientific consultant to the President of the Italian Republic and has recently been granted his High Permanent Patronage. The Academy's mission is to promote, coordinate, integrate and spread scientific knowledge in its highest expressions, in the frame of cultural unity and universality. To this end, the Accademia Nazionale dei Lincei organises national and international conferences, meetings and seminars.

The **Directorate-General Joint Research Centre** (DG JRC) is the European Commission's in-house science service whose mission is to provide European Union policies with independent, evidence-based scientific and technical support throughout the whole policy cycle, addressing societal changes while, at the same time, stimulating innovation through developing new methods, tools and standards, and sharing its know-how with the Member States, the scientific community and international partners.

EDOARDO AMALDI (1908-1989)

Edoardo Amaldi was an Italian physicist who started his research in nuclear physics in collaboration with Enrico Fermi. He has contributed substantially to the current knowledge on artificial radioactivity induced by neutrons and properties of slow neutrons, and gave first direct experimental evidence of the diffraction of fast neutrons by nuclei. After the Second World War, Amaldi was instrumental in the reconstruction of the post-Fermi School of Physics in Italy, and was co-founder of the Italian National Institute for Nuclear Physics (INFN), of the European Organization for Nuclear Research (CERN) and of the European Space Research Organisation (ESRO).

Amaldi supported the Working Group on International Security and Arms Control (SICA) from its inception, organising the first conference on *International Security and Disarmament: The Role of the Scientific Academies* in Rome from 23 to 25 June 1988. The third conference on *Security in Europe and the Transition away from Confrontation towards Cooperation* was held again in Rome in June 1990. The title, the program and the specific items had already been established by Edoardo Amaldi (President of the Lincei Academy at the time) and the SICA group when he died unexpectedly on 5 December 1989. Participants at this meeting decided to dedicate future meetings to the memory of Edoardo Amaldi, hence the name Amaldi Conferences. Since then the Amaldi Conferences have continued on a regular basis.



ACCADEMIA NAZIONALE DEI LINCEI



EUROPEAN COMMISSION

ORGANIZING COMMITTEE

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Lamberto Maffei and Vladimír Šucha

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Francesco Calogero, Giovanni De Santi, Jean-Paul Glatz,
Willem Janssens, Carlo Schaerf, Edoardo Vesentini

PROGRAM

Monday, 30 March

9.15 Opening addresses

Lamberto Maffei, President of the Accademia Nazionale dei Lincei

Luca Giansanti, Director General for Political Affairs and Security, Ministry of Foreign Affairs, Italy

Gerassimos Thomas, Deputy Director General of Directorate General for Energy (DG ENER, European Commission)

Umberto Vattani, President of the Fondazione Italia Giappone

Luciano Maiani, Co-Chair of the XIX Amaldi Conference

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Session 1 – Part I

Perspectives on nuclear safety and security

Chair: **Maurizio Cumo** (European Academy of Sciences and Arts)

- 9.45 - 10.15 Nuclear safety as addressed by the Euratom Treaty provisions and by the Directives adopted after the EU “Stress Test”
(*Speaker* **Stephan Klement** - EC DG ENER)
- 10.15 - 10.45 International community actions to shape global perspectives towards nuclear security current and future challenges
(*Speaker* **Tim Andrews** - IAEA)
- 10.45 - 11.15 Views of an EU Member State on the evolution of nuclear safety
(*Speaker* **Benoît De Boeck** - Bel V, Belgium)
- 11.15 - 11.30 Coffee break

Session 1 – Part II

Nuclear safeguards and non-proliferation

Chair: **Takashi Onishi** (President of the Science Council of Japan - Japan)

- 11.30 - 12.00 The contribution of the CTBT and its verification regime to enhancing nuclear safety, security, safeguards and non-proliferation
(*Speaker* **Tibor Tóth**, Executive Secretary Emeritus - CTBTO)
- 12.00 - 12.30 IAEA nuclear safeguards for deterring the proliferation of nuclear weapons and for detecting any misuse of nuclear material or technology
(*Speaker* **Eric Pujol** - IAEA)
- 12.30 - 13.00 Export control regime
(*Speaker* **Rafael Grossi** - Nuclear Suppliers Group)
- 13.00 - 14.15 Lunch break



Session 2 – Part I.a

**Scientific community actions to shape national perspectives
towards a better synergy between safety, security and safeguards**

Chair: **Giovanni De Santi** (European Commission - DG JRC)

- 14.15 - 14.45 Lessons learned from the Fukushima accident
(*Speaker Nobuyasu Abe*, Japan Atomic Energy Commission - Japan)
- 14.45 - 15.15 The French national perspective on nuclear safety, security and safeguards
(*Speaker Giovanni Bruna*, Institut de radioprotection et de sûreté nucléaire - France)
- 15.15 - 15.45 The USA national perspective on nuclear safety, security and safeguards
(*Speaker Raymond Jeanloz*, University of California, Berkeley - USA)
- 15.45 - 16.00 Coffee break

Session 2 – Part I.b

**Scientific community actions to shape national perspectives
towards a better synergy between safety, security and safeguards**

Chair: **Götz Neuneck** (IFSH, University of Hamburg - Germany)

- 16.00 - 16.30 The Russia national perspective on nuclear safety, security and safeguards
(*Speaker Vladimir Rybachenkov*, Center for Arms Control, Energy and Environmental Studies - Russia)
- 16.30 - 17.00 The Chinese national perspective on nuclear safety, security and safeguards
(*Speaker Zhao Wuwen*, Chinese Academy of Engineering Physics - China)
- 17.00 - 17.30 The Israeli national perspective on nuclear safety, security and safeguards
(*Speaker Merav Zafary-Odiz*, Israeli Atomic Energy Commission - Israel)
- 18.00 - 19.00 Guided tour to Villa Farnesina (www.villafarnesina.it)
- 20.00 Welcome reception



Tuesday, 31 March

Session 2 – Part II

**Scientific community actions to shape national perspectives
towards nuclear security current and future challenges**

Chair: **Gianfranco Incarnato** (Ministry of Foreign Affairs - Italy)

- 9.45 - 10.15 The Indian national perspective in promoting nuclear security
(*Speaker* **Ramamurti Rajaraman**, Jawaharlal Nehru University - India)
- 10.15 - 10.45 The Pakistani national perspective in promoting nuclear security
(*Speaker* **Parvez Butt**, Pakistan Energy Planning Commission - Pakistan)
- 10.45 - 11.15 The Iranian national perspective in promoting nuclear security
(*Speaker* **Ali Asghar Soltanieh**, Atomic Energy Organization of Iran - Iran)
- 11.15 - 11.30 Coffee break

Session 2 – Part III

**Scientific community actions to shape
enhanced nuclear safeguards and non-proliferation policies**

Chair: **Reza Mansouri** (Iranian National Observatory - Iran)

- 11.30 - 12.00 Scientific and technological developments supporting nuclear safeguards and
non-proliferation
(*Speaker* **Willem Janssens**, EC JRC)
- 12.00 - 12.30 The case of SESAME, a scientific regional collaboration which can lay a
basis to increased security
(*Speaker* **Eliezer Rabinovici**, Hebrew University of Jerusalem - Israel)
- 12.30 - 13.00 The role of science-based NGOs in promoting perspectives towards nuclear
non-proliferation
(*Speaker* **Paolo Cotta-Ramusino**, Pugwash Conferences on Sciences and
World Affairs)
- 13.00 - 14.15 Lunch break



14.15 - 15.45

Panel I

Scientific and technical challenges to the effective implementation of the “3S” (Safety, Security and Safeguards) approach

Chair: **Said Abousahl** (European Commission - DG JRC)

Participants: **Anne Harrington** (National Nuclear Security Administration - USA)
Daniel Iracane (Commissariat à l'énergie atomique - France)
Elina Martikka (Radiation and Nuclear Safety Authority - Finland)
Stamatios Tsalas (European Commission, Euratom Supply Agency)

15.45 - 16.00

Coffee break

16.00 - 17.30

Panel II

Role of international cooperation and scientific community actions for enhancing nuclear safety, security, safeguards and non-proliferation

Chair: **Luciano Maiani** (Accademia Nazionale dei Lincei)

Participants: **Tim Andrews** (IAEA)
Jacek Bylica (European External Action Service - European Union)
Francesco Calogero (Sapienza University of Rome - Italy)
Vladimír Šucha (European Commission - DG JRC)

17.30

Closing of the Conference

VENUE OF THE CONFERENCE

Accademia Nazionale dei Lincei
Palazzo Corsini
Via della Lungara 10
Rome

www.lincei.it