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Dr. Aldo SPAZIANI
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Dr. Mercedes BERGOGLIO
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Dr. Fabio COMPAGNONE
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Web:

Information and registration: www.theatomunexplored.org
email: info@theatomunexplored.org

Directions to the Conference Room

From **Torino Porta Nuova** (railway station) - estimated time 11 min:
Go to bus stop: 40 - PORTA NUOVA FS
(C.so Vittorio Emanuele II, in front of Porta Nuova)
Take the line 33B in direction Partigiani - 6 stop
Get off at 378 EINAUDI
Walk for 50 meters

From **Caselle Airport** - estimated time 1h 05min:
At the exit "Arrival", take the bus "Sadem" and get off at the terminus in
Corso Vittorio Emanuele.
Then, follow the same indications as from Torino Porta Nuova

Scientific Committee:

Prof. Andrea LAPICCIRELLA
(Università di Roma "La Sapienza")

Prof. Antonio NAVIGLIO
(Università di Roma "La Sapienza")

Prof. Bruno PANELLA
(Politecnico di Torino)

Prof. Piergiorgio PICOZZA
(Università di Roma "Tor Vergata", INFN)

Prof. Piero RAVETTO
(Politecnico di Torino)

Dr. Franco ROSATELLI
(Ansaldo Energia)

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**HIDDEN POTENTIAL OF THE CUTTING-EDGE RESEARCH
ON NUCLEAR TECHNOLOGY**

May 4th 2012

Sala Consiglio di Facoltà, Politecnico di Torino
corso Duca degli Abruzzi, 24 – Turin (Italy)

"The Atom Unexplored"

*Hidden Potential of the cutting-edge research
on nuclear technology*

During the last year, many events radically changed the policy of power production. While the cost of energy keeps rising, the current challenges in this field seem quite far to be faced by the actual technologies.

Recently, international scenario has seen a renewed interest for research on innovative technologies for nuclear energy generation.

This improved attention led to the conception of the International Conference "The Atom Unexplored", aiming for three main goals: identify the most promising alternatives to fossil fuel and current nuclear reactors; inform the scientific, institutional and industrial community about the current advancements and future initiatives in the field of innovative nuclear technologies for energy production; foster the discussion about the relevant workshop topics among the interested stakeholders.

Two issues are addressed in two different sessions: Low Energy Nuclear Reactions, and High Energy Nuclear Reactions. The former is focused on the new scientific results currently achieved in the novel field of Piezo-, Lattice Assisted Nuclear Reactions and of Cold Fusion in general, while the latter concerns the deployment and the critical elements of the promising technologies already developed, such as nuclear fusion and the new generation reactors.

The scientific contributions from the speakers will help the participants to understand if there is any unexploited potential in both technologies which could open up to new opportunities for the future of energy production.

"Solidarietà e Sviluppo" is a non-profit cultural association, founded in Rome in 2002, made by a group of manager from public and private institutions with the aim of creating a connection between politics and society. The association has realized many humanitarian initiatives and, in parallel, has organized cultural and scientific events concerning cutting-edge research on several Hi-Tech topics (see www.solidarieta-sviluppo.org).

The Istituto Nazionale di Ricerca Metrologica (INRIM) is a public body under the jurisdiction of the Ministry of Education, Universities and Research. INRIM is devoted to the study of the science of measurements and to research in materials science; furthermore it works on developing innovative technologies and devices (see www.inrim.it).

9:30

Registration

10:00

Welcome address

Francesco Mazzuca - SOLIDARIETÀ E SVILUPPO
Introduction to the Workshop

10:30

Session I – Low Energy Nuclear Reactions

Discussant: **Walter PECORELLA** - UNIVERSITÀ DI ROMA "TOR VERGATA",
ANSALDO ENERGIA

Alberto CARPINTERI - POLITECNICO DI TORINO, ISTITUTO
NAZIONALE DI RICERCA METROLOGICA

*Piezonuclear Fission Reactions in Rocks:
Evidences from Microchemical Analysis, Neutron Emission, and
Geological Transformation*

Peter L. HAGELSTEIN - MASSACHUSETTS INSTITUTE OF TECHNOLOGY
*JET Energy NANOR: the Role of the Nanoengineered Lattice in
Enabling the CF/LANR Activity*

11:30

Coffee break

12:00

Francesco PIANTELLI - NICHENERGY, CENTRO IMO - UNIVERSITÀ DI SIENA
Valerio CIAMPOLI - NICHENERGY
Anomalous Phenomenon in Ni-H Systems

Giovanni CHERUBINI - UNIVERSITÀ DI ROMA "LA SAPIENZA" - CENTRO
RICERCHE RADIOATTIVITÀ CRR - ARPA LAZIO
Neutrons from Piezonuclear Reactions induced by Cavitation

13:00

Lunch time

15:00

Session II – High Energy Nuclear Reactions

Discussant: **Maurizio CUMO** - UNIVERSITÀ DI ROMA "LA SAPIENZA"

Douglas BARTLETT - EUROPEAN COMMISSION DG-RTD, UNIT K5 - ITER
The European Key Role in Design, Construction and Operation of ITER

Giovanni RICCO - UNIVERSITÀ DEGLI STUDI DI GENOVA, - ISTITUTO
NAZIONALE DI FISICA NUCLEARE

Alessandro ALEMBERTI - ANSALDO NUCLEARE
Accelerator Driven Sub-critical Nuclear Reactors

Marco E. RICOTTI - POLITECNICO DI MILANO
*The New Age of Nuclear Fission: a Roadmap for the Generation IV
Lead Cooled Fast Reactors*

16:30

Conclusions