



**EUROPEAN ACADEMY OF SCIENCES**

In support of Excellence in Science and Technology



**Central building of the Academy of Athens**

**November 5<sup>th</sup>, 2010**

**The Presidium and the Executive Committee  
have the pleasure to invite you to  
the **General Assembly** and **the Ceremony of Awards 2010**  
of the  
**European Academy of Sciences****

*with the support of the Academy of Athens and the University of Athens*

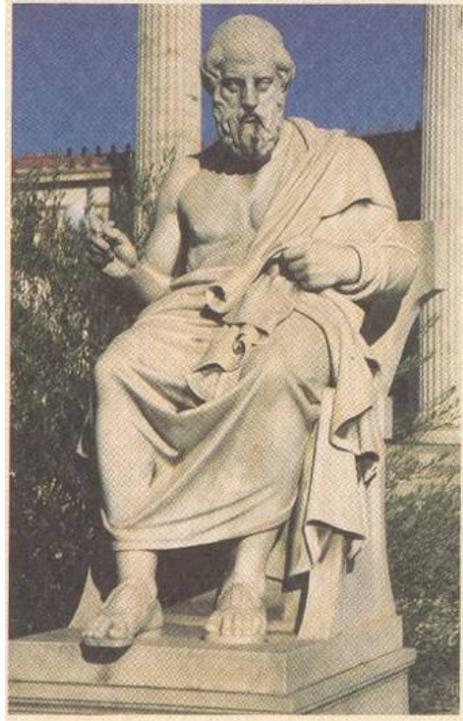
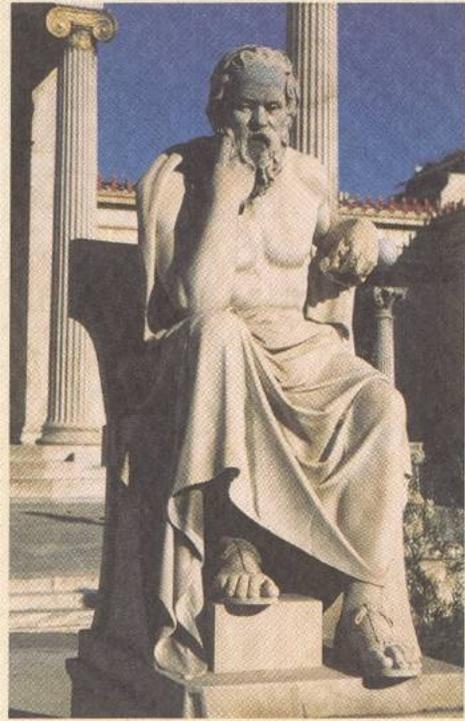


National and Kapodistrian  
UNIVERSITY OF ATHENS

ACADEMY



of ATHENS



**9 to 9 : 45 am : EAS members General meeting (Lecture Hall)**

## MAIN HALL

**10 : 00 to 10 : 30 am : Welcome addresses by President of EAS H. de Rode and the President of the Academy of Athens C. Svolooulos**

**10 : 30 to 11 : 15 am : Delivery of the awards 2010 for the Kepler Prize, the Leonardo da Vinci Award and Blaise Pascal Medals.**

**11 : 15 to 11 : 30 am : Coffee break**

## Lecture Hall

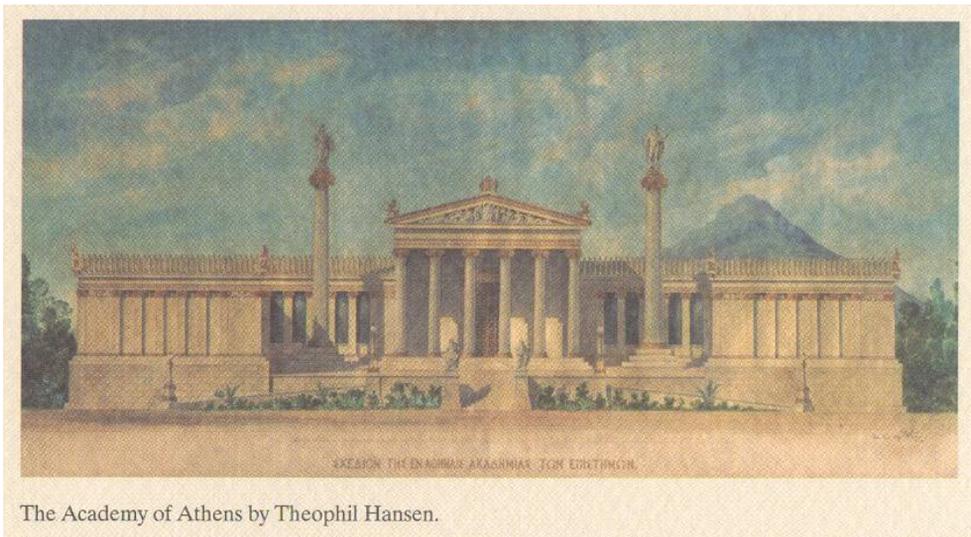
**11 : 30 to 12 : 00 am : Presentation of the Kepler Prize by Prof. Capasso and the Awardees.**

**12 : 00 to 12 : 30 pm : Prof. Jacques Friedel, Leonardo da Vinci Award in Physics  
Lecture : "From Concepts and Models to photographic reality in Materials "**

**12 : 30 : Lunch buffet**

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A.I.S.B.L - BCE 0865.074.308

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The Academy of Athens by Theophil Hansen.

- 2 : 15 to 2: 45 pm : Prof. Giovanni F. Bignami, Bl.Pascal Medal in Astrophysics**  
**Lecture : "Hunting for neutron stars with gamma-rays"**
- 2 : 45 to 3 : 15 pm : Prof. Henri Kagan, Bl.Pascal Medal in Chemistry**  
**Lecture : "Nonlinear effects in asymmetric catalysis"**
- 3 : 15 to 3 : 45 pm : Prof. Anthony Kounadis Bl.Pascal Medal in Engineering.**  
**Lecture : "Rocking instability of free-standing statues on top of multi drum- columns under ground motion."**
- 3 : 45 to 4 pm : Coffee Break**
- 4 to 4 : 30 pm : Prof. Howard Morris Bl.Pascal Medal in Medicine and Life Sciences.**  
**Lecture : "Biomolecular Mass Spectrometry in the Study of Health and Disease"**
- 4 : 30 to 5 pm : Prof. Martin Schadt Bl.Pascal Medal in Materials Science**  
**Lecture : "Field-Effect Liquid Crystal Displays (LCDs)"**
- 5 to 5 : 30 pm : Prof. David Sherrington, Bl.Pascal Medal in Physics.**  
**Lecture : "Physics and Complexity"**
- 5 : 30 to 5 :45 pm : Welcome to the new fellows of the European Academy of Sciences.**
- 5 : 45 pm : President H. de Rode : Conclusions.**
- 8 : 30 pm : Dinner at The Biomedical Research Foundation (BRF) of the Academy of Athens**



## Leonardo da Vinci Award 2010 Presentation :



### **Jacques Friedel : Materials Science, University Paris-Sud, France**

In recognition in his outstanding achievements in solid-state physics and physical metallurgy. A member of an illustrious family of famous French scientists spanning over six generations, he is one of the founders of materials science. His findings in dislocation theory, modeling of mechanical properties electronic structures of metals, especially the localized and delocalized states in diluted alloys, spin glasses, surface and cluster properties are unprecedented. He has considerably inspired and influenced several generations of solid-state physicists and was deeply involved in building a European school of condensed matter physics. He has been awarded the gold medal of the French CNRS (1970), elected as a foreign member of the National Academy of Sciences of the United States, and has served as the President of the French Academy of Sciences (1993-4).

**The Awards ceremony will be honoured by the support of the Academy of Athens**

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# EAS BLAISE PASCAL MEDALS 2010

## Presentation :



### Professor **Giovanni F. Bignami, Italy, Blaise Pascal Medal in Astrophysics**



*In recognition of the absolute value of his accomplishments and for the impact he has had on the world community. An internationally known astronomer and leader of space science in Europe, Prof. Bignami performed fundamental research on the population of gamma-ray sources in our galaxy, including neutron stars, and his work was essential to the discovery of the first extragalactic gamma-ray source. In fact, Prof. Bignami was instrumental in developing world-wide gamma-ray astronomy as a new space-age discipline. His research on the identification and understanding of Geminga as the first of a new class of gamma-ray neutron stars remains a template for today's workers in the field. Exploiting space and ground-based astronomy data, GFB created a new school in the phenomenology and physics of compact celestial objects, but also devoted important efforts in the development of advanced space missions, as well as space policy, in Italy as well as in Europe. A member of the Accademia dei Lincei and of the Académie des Sciences, GFB has received the Bruno Rossi Prize of the American Astronomical Society.*

### Professor **Henri B. Kagan, France, Blaise Pascal Medal in Chemistry**



*In recognition in his outstanding achievements in asymmetric catalysis and organic synthesis. In his 1970 patent and follow-up articles (1971-2), he reported the very first high catalytic symmetric induction, based on his powerful concept of chiral chelating ligand. The applications of asymmetric catalysis are of considerable importance, because optically active compounds including many very active drugs can be efficiently made in this way from optically inactive starting materials. In spite of his scientific elegance, he was not awarded the 2001 Nobel Prize dedicated to asymmetric catalysis, which evidently led to a controversy. Later (1986), he introduced the remarkable idea of non-linear effects in asymmetric induction. Another key discovery was that of the easy synthesis of samarium diiodide and its numerous applications in organic synthesis. He was awarded inter alia the silver CNRS medal (1979), the Wolf Prize (2001), the JSPS Award (2002) and the Great Prize of the Maison de la Chimie (2002).*

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# EAS BLAISE PASCAL MEDALS 2010

## Presentation :



### Professor **Anthony Kounadis, Greece, Blaise Pascal Medal in Engineering**



*In recognition of his outstanding contributions to the development of innovative solutions of nonlinear static and dynamic stability problems of conservative and nonconservative, damped or undamped, structural systems, and rigorous mathematical postbuckling analyses of frames. He contributed to the understanding of dynamic buckling mechanisms, dynamic imperfection sensitivity and determination of exact dynamic buckling loads. He explored new findings that contradicted previous widely accepted results, e.g. the failure of Ziegler's criterion, singularity phenomena, and the tremendous effects of infinitesimal damping and of mass distribution on conservative systems (implying flutter instability, buckling loads discontinuity, etc). He developed sophisticated postbuckling techniques in open thin-walled steel structures, liable to non-Eulerian buckling, and established the conditions where the initial imperfections increase the buckling loads of steel frames of rolled shape sections. He designed major athletic installations for European Championships & Olympic Games, and founded and led the 1st postgraduate program in civil eng. in Greece at the NTUA, providing advanced specialized training of civil engineers in various applied fields.*

*Professor Kounadis, is a full member of the Academy of Athens, a member of Academia Europaea, foreign member of the Serbian Academy of Sciences and member of other academies. He is Honorary PhD of the University of Nis, Serbia and the Democritus University of Thrace, Greece.*

### Professor **Howard Morris, U.K., Blaise Pascal Medal in Medicine and Life Sciences**



*In recognition of his outstanding and influential research on the structural characterisation of bioactive molecules, including the protein products emerging from the world's biotechnology and pharma industries, and for his inspired inventive design of advanced mass spectrometers to permit such complex analysis. Howard Morris is regarded internationally as the founding father of modern Biomolecular Mass Spectrometry. He was the first to apply mass spectrometry to protein sequencing and he made determinations practical that had previously been thought quite impossible. Amongst his landmark achievements are structure elucidations of Enkephalin, the first endogenous brain opiate to be identified, and Calcitonin Gene-Related Peptide, a potent vasodilatory substance. His pioneering technological contributions include the introduction of the world's first High Field Magnet mass spectrometer and the development of the low-energy ultra-high sensitivity Q-TOF instrumentation that has fuelled the proteomics revolution. His many honours include election to the Fellowship of the Royal Society in the UK and a Gold Medal Award from the University of Naples.*

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# EAS BLAISE PASCAL MEDALS 2010

## Presentation :



Professor **Martin Schadt, Switzerland, Blaise Pascal Medal in Materials Science**



*In recognition of his pioneering contributions to the development of Liquid Crystal Displays (LCDs) and Liquid Crystal Materials LCs). Based on the pioneering discovery of the liquid crystalline state in 1888/1889 by Reinitzer and Lehmann as well as a first twist observation in 1912 by Mauguin, M. Schadt (in co-operation with W. Helfrich) opened the way to commercial field-effect liquid crystal displays by inventing (in 1970) the "Twisted Nematic (TN)-Effect". The LC-molecules in an LCD which is based on the twisted nematic electro- optical effect exhibit at its two (transparent) substrate-boundaries orthogonal uniaxial alignment of the long axes of the LC-molecules. In its off-state wave- guiding in the alignment-induced twisted nematic LC-helix by 90 degrees renders TN-LCDs transmissive (bright) between crossed polarizers. If an electric field is applied to the patterned electrodes of the (transparent) substrates of a TN display, the positive dielectric 900 twisted molecular configuration re-aligns within the electrode areas towards the field direction, generating a high-contrast optical pattern. LCDs based on the TN-effect can efficiently be operated at very low voltages and currents. Their optical resolution meets the demands of very high information content electronic displays. Field-effect LCDs are used today in virtually all flat panel display applications, e.g. watches, cellular phones, computer monitors, television screens, etc. The rapidly expanding total LCD market amounted 2009 to 200 \$billion.*

Professor **David Sherrington, Great Britain, Blaise Pascal Medal in Physics**



*In recognition of his outstanding, innovative and influential contributions in theoretical condensed matter physics, especially, but by no means exclusively, concerning complex cooperative behaviour of frustrated and disordered many body systems; his 1975 model for a spin glass has become a paradigm for studying complexity and its solution and extensions have led to highly subtle new conceptualizations, recognition of important but initially unexpected issues, methodologies and applications across many subjects. Also for his work in promoting, coordinating and guiding physics in Europe; he set up and coordinated several European networks that brought and kept together, in very productive and harmonious collaboration, physicists and several other scientists from many European countries. He headed Oxford's powerful Theoretical Physics for 15 years and for 26 years has been Editor-in-Chief of the high Impact Factor review journal "Advances in Physics".*

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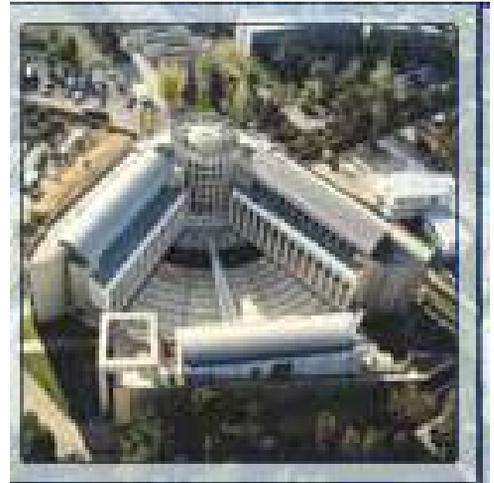
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## Evening dinner

Members are invited to an official dinner at the premises of the Academy's Biomedical Research Foundation (BRF), where they will be transferred by buses, after the conclusion of the Awards Ceremony. The Biomedical Research Foundation is situated in an area of over 25.000 square meters, dedicated to understanding, treating, and preventing human ailments through biomedical research. It seeks to serve science and medicine, and to participate fully in global innovation through its commitment to the true integration of biology, medicine and informatics.



The Biomedical Research Foundation (BRF) of the Academy of Athens is a non-profit institute dedicated to understanding, treating, and preventing human ailments through biomedical research. BRF seeks to serve science and medicine, and to participate fully in global innovation through its commitment to the true integration of biology, medicine, and informatics.



## Map

Academy of Athens : [Link to google map](#)

## Accommodation

Concerning the accommodation, there are two hotels (ESPERIA and TITANIA) in Athens near the Academy 5-10 min walk ,which the Academy of Athens uses or his visitors. The addresses are:

[TITANIA HOTEL, Panepistimiou Street 52](#)  
[ESPERIA PALACE HOTEL, Stadiou Street 19.](#)

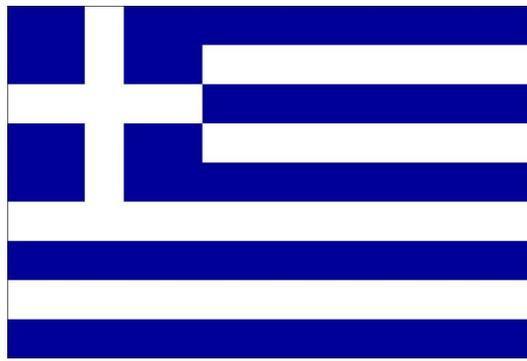
Both hotels are known to be good for the required standards with very reasonable prices including Breakfast.

Our Awardees 's rooms are booked at the Esperia Hotel.

You can find online booking tools on both website for reservations.

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## Venue :

- **Address : Academy of Athens**

28 Panepistimiou Avenue 106 79 Athens, Greece

- **Closest Metro Station :**

Station Panepistimio, (red)

- **Metro from airport :**

1- Get to the Airport Metro station **direction : Egaleo (blue)**

**Starts every hour at 05' and 35'**

**Availability from (First ) 06:35 to (Last ) 23:35**

2- **At the station Syntagma** (time spent +- 40')

**Get out**

3- **Take a 'red line' metro in direction of Station Panepistimio.**

**Get out at the first stop.**

- **Metro to airport :**

Take a red line metro in direction of **Aghios Dimitrios**

Get out when you reach the station : **Syntagma.**

At **Syntagma** take a blue line to the Airport metro station.

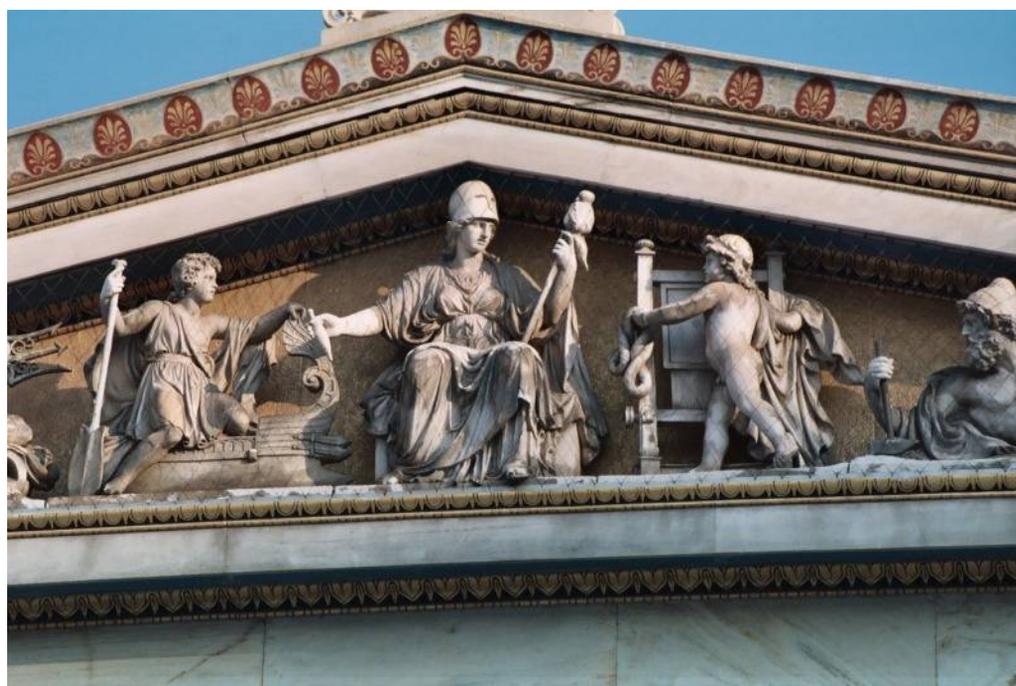
**Starts every hour at 04' and 34'**

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## Registration form

please fax it to the Academy, FAX: +32 (0)4 253.28.70

**November 5<sup>th</sup>, 2010: EAS General Assembly, Athens**

Title:  Prof.  Dr.  Mr.  Mrs.  
Name .....  
Address .....  
Tel. .... Fax .....  
E-mail: .....

### Registration form

- Eve Dinner (- November 4<sup>th</sup> - please attach 50 € proof of payment )
- Morning Session
- Afternoon Session
- Evening Dinner (- November 5<sup>th</sup> -)

- EAS Members:
- Other Professors: University .....
- Companies: Company .....
- Accompanying person: Name .....

Date

Signature

For organisation and security reasons, participants are kindly requested to bear the registration form with them

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