

18th EUROPEAN UNION CONTEST for young scientists stockholm, sweden



Jury

The jury is composed of a president and 14 other jury members. They carry out their duties as individuals and not as representatives of an institution or country. The members of the jury are selected on the basis of scientific criteria to represent their discipline. They are drawn from both academia and industry. The Commission appoints the Jury annually. At least one third of the jury members are replaced each year in accordance with normal Commission procedures.



Jane Grimson - President of the Jury
Trinity College Dublin

Professor Jane Grimson is a computer engineering graduate from Trinity College, Dublin, and holds a Masters and Doctorate in Computer Science from the Universities of Toronto and Edinburgh, respectively. In 1980 she returned to Trinity College as a lecturer in Computer Science. She is a Past-President of the Institution of Engineers of Ireland, the Irish Academy of Engineering, and the Irish Computer Society and is currently President of the Healthcare Informatics Society of Ireland. Professor Grimson is a member of the European Research Advisory Board, the Executive Board of the European Science Foundation, and of the Board of Science Foundation Ireland, and chair of the Irish Research Council for Science, Engineering and Technology. She is a Fellow of the Royal Academy of Engineering, the Irish Academy of Engineering, Engineers Ireland, the Irish Computer Society, and the Royal Academy of Medicine of Ireland. Her main research interest is in health information systems and electronic health records. She holds a personal chair in Health Informatics and is Director of the Centre for Health Informatics



Paola Agostini
University of Milano-Bicocca

Paola Agostini graduated in Biological Sciences at the University of Milan (Italy) in 1973 and took her permanent position as a teacher in 1975. Since then, she has been teaching Biology, Biochemistry and Ecology in high schools. Meanwhile, she was active in promoting life science and research methods among young people preparing projects for the National Contest. She has published in the areas of environment and high school education, and co-operated with the Italian Ministry of Education in planning new programs in Life Sciences for public High Schools. She also organized training courses for teachers in ecological, chemical and biological fields. She is currently working at the University of Milano-Bicocca where she is in charge of the organization of international projects in the fields of bioinformatics and environmental sciences.



Anders Bárány

The Nobel Museum and Stockholm University

Anders Bárány was born in Uppsala, Sweden, in 1942. He has a Ph.D. in Theoretical Physics from Uppsala University. For many years he was a Lecturer and taught physics courses there. During the 1980's he worked at the Research Institute for Physics in Stockholm with the CRYRING project, a facility for low-energy atomic collisions with highly charged ions. At the Royal Swedish Academy of Sciences, he was Executive Editor of the journal *Physica Scripta* 1988-96 and Scientific Secretary of the Nobel Committee for Physics 1989-2003. On leave of absence from his position as Professor of Physics at Stockholm University since 1999, he is now Deputy Director of the Nobel Museum. In this position, he produced the current exhibition on Albert Einstein.



Mireille Chaleyat-Maurel

University Paris V

Mireille Chaleyat-Maurel is a former student of the Ecole Normale Supérieure de Paris (1965-1968). After her thesis in Mathematics, she was Professor at the University Panthéon-Sorbonne and currently, she is Professor at the University René Descartes (Paris V). Her research interests are in Probability Theory and include Filtering Theory and Stochastic Differential Equations. In addition to her teaching and research duties, she has been involved in raising public awareness in Mathematics for the past twenty years. She acted as President in the IMU/UNESCO Committee for the World Mathematical Year 2000 and was the coordinator of the project "Maths in Action" for the European Science Week (2000). She was awarded (with a team of three collaborators) the "d'Alembert Prize 2001". Together with M. Alarcon, M. Chaleyat-Maurel manages the team who has realized the travelling exhibition "Experiencing Mathematics".



Piotr Chrzastowski-Wachtel

University of Warsaw

Piotr Chrzastowski-Wachtel completed his master and doctoral studies at the Institute of Informatics, Warsaw University in the area of concurrency. He has been employed at Warsaw University since 1980. During the recent years he has also worked at the Polish-Japanese Institute of Information Technology and in Warsaw School for Social Psychology, where he is involved in organizing a novel type of studies combining computer science, psychology and art. He teaches informatics and mathematics at various levels and in various types of studies, including primary school level (5-12). Prof. Chrzastowski-Wachtel is also a member of the Program Committee of Olympiad in Informatics in Poland, for which he designed over 20 original problems during the past 12 years and takes active part in the popularization of science in Poland.



Peter Csermely

Semmelweis University

Peter Csermely is a professor of the Semmelweis University in Budapest, Hungary. His major fields of study are molecular chaperones (www.chaperone.sote.hu) and networks (www.weaklink.sote.hu). In 1995 Dr. Csermely launched a highly successful initiative, which provides research opportunities for more than 10,000 gifted high school students (www.nyex.info). He wrote and edited ten books (including the *Weak Links* at Springer in 2006) and has published two hundred research papers with a total citation over 1700. Dr. Csermely is the vice president of the Hungarian Biochemical Society and is the president of Cell Stress Society International; furthermore he was a Fogarty and Howard Hughes Scholar and received several national and

international honours and awards including the 2004 Descartes Award of the European Union for Science Communication.



Marco de Baar

European Fusion Development Agreement (EFDA)

Marco de Baar is presently Head of the Operations Department in the Close Support Unit at JET (Abingdon, UK) where he is responsible for the definition, execution and monitoring of the JET Operation Contract and for the implementation of the Fusion Technology programme. As a deputy to the Head of the FOM-Electron Cyclotron Wave (ECW) Group in Jülich, Germany, he supervised the construction of a high power ECW quasi-optical transmission line, and the mounting of a new ECW-launcher for localised heating and current drive in TEXTOR. His scientific interests are: Modelling of 3D electromagnetic turbulence and structure formation in tokamak plasmas with dominant Electron Cyclotron Resonant Heating, Fuelling of high performance plasma discharges with central turbulence suppression and the development of high performance plasmas at high current and high radiation fraction.



Helena Freitas

University of Coimbra

Helena Freitas graduated in Biology and obtained her Ph.D. at the University of Coimbra, Portugal, in 1993. In 1995 she completed her post-doctoral work at Stanford University (USA). She is currently Head of Department and Director of the Botanical Garden of the University of Coimbra, where she co-ordinates an interdisciplinary unit involved in several national and international projects on Mediterranean ecosystems, bio-diversity, plant-soil interactions, and nature conservation. The unit expertise supports a significant capacity to interact with other units, through the participation in research programmes and post-graduate courses. Professor Freitas was president of the Portuguese NGO for the Conservation of Nature (LPN, IUCN member) from 1999 to 2002 and is currently President of the Portuguese Ecological Society and member of the Board of the European Ecological Federation.



Petr Klán

Institute of Computer Science, Prague

Petr Klán was born in 1957. He received two M.Sc. degrees: in cybernetics (1981) from the Czech Technical University, Prague and in computer science (1995) from the Charles University, Prague. He obtained his Ph.D. degree in cybernetics (1994) from the Academy of Sciences of the Czech Rep. Currently he is scientist in the Institute of Computer Science, Prague and associate professor of automatic control and informatics at the Czech Technical University, Prague. During 1999-2000 he was a Research Fellow at the University Louvain, Belgium. His research interests include sensor networks, ubiquitous computing, control and information theory, integral transforms and Web services. He has led several research projects and written a number of journal articles and conference papers on all these fields.



Uno Puus

University of Tartu, Cybernetica AS

Uno Puus studied both Mathematics and Psychology at the University of Tartu, Estonia, where he obtained his masters degree in Informatics. From 1989 to 1993 he has been working as a teacher at the Nyo school for mathematics, physics and chemistry. At the same time, he participated as supervisor in the international summer school for young programmers in Novosibirsk in 1986 and 1987. Since

1998 he is working as head of laboratory at the Cybernetica R&D Company in Estonia, which is active in the field of data security and software development. He continues PhD studies at the University of Tartu in the field of Informatics.



Colin Pulham

University of Edinburgh

Colin Pulham studied Chemistry at the University of Oxford where he obtained a DPhil. in inorganic Chemistry. After a further two years of research at Oxford, he moved to the University of Edinburgh where he is currently a senior lecturer in the School of Chemistry with research interests that include the study of the effects of high pressures on molecular compounds such as pharmaceuticals, the use of high-temperature molten salts for metal extraction, and novel synthetic methods for the preparation of metal nitrides. For the past ten years he has developed an outreach programme to promote public engagement with science that highlights the relevance of the chemical sciences to our everyday lives. He was recently awarded the Royal Society Kohn Award for Excellence in Engaging the Public with Science Communication.



Seppo Pohjolainen

University of Tampere

Seppo Pohjolainen received an M.Sc. degree in Engineering, a Masters degree in Technology, and the Ph.D. degree in Applied Mathematics, all from Tampere University of Technology (TUT). Since 1972 he has been with the Department of Mathematics at TUT, where he became Professor in 1998. He has been a Research Fellow at the Academy of Finland and founded the Hypermedia Laboratory at TUT in 1994. Currently he is head of the Department of Mathematics and director of the Hypermedia Laboratory. His research interests include mathematical control theory, mathematical modelling and simulation, distance learning, open learning environments, and development of hypermedia courseware. He has led several research projects and written a number of journal articles and conference papers in all these fields.



Amparo Rausa March

University of Valencia

Since 2004, Dr. Amparo Rausa March has been working as Advisor to the Rector of the University of Valencia. Prior to this position, she was the Director of the Brussels Office of the Spanish Inter-Ministerial Commission of Science and Technology, has also worked for the EC, the Regional Government of Valencia, and the UN Industrial Development Organization in Vienna. Born in Valencia, Spain, Dr. Rausa March received a Bachelor and PhD degree in Chemistry from the Universidad de Valencia. After completing her dissertation, she conducted research in the Chemistry and Chemical Engineering Departments at the Massachusetts Institute of Technology in the field of enzyme technology. She widened the scope of her professional interests at the J. Hopkins University with a Master in Public Policy. Dr. Rausa's fields of expertise and interest range from chemistry to RTD Policy and International Relations.



Johannes Steenbakker

European Patent Office

Johannes Steenbakker studied mechanical engineering at the University of Delft, Holland. Graduating in 1979, he commenced in the same year at the Dutch Patent Office, moving in 1979 to the European Patent Office, of which he currently is Principle Director. In addition to this background in mechanics, he has substantial experience of assessing inventions across a range of technical fields including

telecommunications, biotechnology and vehicles, and has a particular interest in medical and agricultural applications. He was nominated Principal Director of the EPO in 2002, in which role he is now responsible for all matters relating to the search, examination, granting and opposition of European patents in the field of telecommunications.



Jelka Strgar

University of Ljubljana

Dr. Jelka Strgar graduated in Biology at the University of Ljubljana. She made a specialisation in The Holden Arboretum in Cleveland (USA). After her return she set up a pedagogical programme for visitors of The Botanical Gardens of the University of Ljubljana. Since 1989 she has been a teaching assistant at the Biotechnical Faculty and has been involved in an internal training in the field of biology for elementary and secondary school teachers. Since 2005 she is President of the Biology National Examination Commission and as an external biology expert she collaborates with The Pedagogical Institute, which is in charge for TIMSS and PISA projects in Slovenia. Her research is focused on didactics of biology; pre-service and in-service training for teachers, and written materials in educational process.