



## EPS-8: Trends in Physics

# 8th EPS General Conference

4-8 September 1990

RAI Congress Centre, Amsterdam

In these changing and challenging times it will be a pleasure to have the Netherlands' Physical Society as our host at the 8th General Conference in Amsterdam, one of Europe's most lively and friendly cities. A special effort has been made to include a variety of social, cultural and touristic events for a very reasonable conference fee (FL 75.- for students), the aim being to attract as many young people as possible from all over Europe.

General Conferences have been a feature of the EPS right from the start since it has always been thought necessary to present, every few years, developments throughout physics to a wide audience. They bear witness to the remarkable co-operation between European physicists at all levels — a vitally important characteristic if we are to enjoy in full the benefits of increased mobility, especially among younger scientists.

The Organizing Committee under Professor A.M. Hoogenboom has found considerable financial support to help reduce the cost to participants without jeopardizing either the depth of the scientific programme or the quality of the social events.

The early part of the programme emphasises applied topics in aiming to create new links between universities and industry (especially our Associate Members), and to present a balanced view of the world of physics that many will be about to enter for the first time. The programme consists of general plenary talks highlighting important recent advances given mostly in the mornings by authoritative speakers; and specialised parallel symposia comprising invited and contributed talks held in the afternoons. Contributed papers will also be accepted by the symposium Chairmen for presentation as posters, either on the day of the symposium concerned, or at a general poster session where participants will be encouraged to present overviews of their research projects.

The titles of the symposia are listed below; invited speakers and those intending to participate who wish to contribute should be prepared to send a good quality, "ready-to-print", one page abstract in English before 1 May 1990 to the EPS-8 Programme Secretary. Further details are given in the **second circular** available from:

**EPS-8 Conference Secretariat,  
RAI Organisatie Bureau Amsterdam bv,  
Europaplein 12, 1078 GZ Amsterdam,  
The Netherlands**

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A special symposium entitled Physics and the Environment organized by the EPS Action Committee on Physics and Society is held on the Thursday evening. A panel discussion will follow introductory talks on induced critical conditions in the atmosphere and balances in the atmosphere and the energy problem.

The social programme sets off with a short, informal get-together on Monday evening at the RAI Congress Centre, which is ideally situated being only minutes by public transport from both the

airport and the city centre. The main social event is the official reception on Tuesday evening at the "Rijksmuseum" (participants will be taken by canal boat!). Wednesday starts with an "early bird tour" to the world's largest flower auction, followed by EPS special events including the Cecil Powell Memorial Lecture by J.A. Zakrzewski from Warsaw, the presentation of the 1990 Hewlett-Packard Europhysics Prize, and the General Meeting of the Society's IOMs to which delegates from affiliated societies and new members who sign on at the conference are invited.

Registration before 1 July 1990 avoids payment of an additional fee of FL 60.-. Full details about registration, accommodation, satellite meetings, etc. are given in the second circular.

### Plenary Talks

Diffraction Optics: Applications of Microrelief Structures	K. Knop, Zürich
Supernova Physics	H.A. Bethe, Cornell
Four Years of High $T_c$ Superconductivity	K.A. Müller, Zürich
Physics and Technology of the Megabit Chips	R.P. Kramer, Eindhoven
On the Carriers of Forces (Cecil Powell Memorial lecture)	J.A. Zakrzewski, Warsaw
Nuclear Matter under Extreme Conditions	R. Stock, Frankfurt
Nuclear Physics with Electrons	B. Frois, Gif-sur-Yvette
Experiments on Time Reversal Symmetry and Parity	N.F. Ramsey, Cambridge, USA
Quantum Crystals	A.F. Andreev, Moscow
New Physics in Mesoscopic Systems	B.L. Altshuler, Leningrad
Magnetic Fields in the Sun and in the Stars	N.O. Weiss, Cambridge
Prospects for the Theory of Everything	G. 't Hooft, Utrecht
Construction, Operation and First Results from LEP	H. Schopper, Geneva
Recent Advances in the Physics of Magnetic Confinement of Thermonuclear Plasmas	J. Jacquinot, Culham
Squeezed States of Light	H.J. Kimble, Pasadena, USA
Single Atom Experiments and the Test of Quantum Physics	H. Walther, Garching
Physics of Millisecond Pulsars	E.P.J. van den Heuvel, Amsterdam
The Contribution of Statistical Physics to Neural Network Theory	G. Toulouse, Paris
Physics of Fractals	L. Pietronero, Rome
Laser Studies of Cold Hydrogen Atoms	T.W. Hänsch, Garching

### Parallel Symposia

Nuclear Physics	Fibre Optics
Order and Chaos in Physics (and Biology)	Non-classical States of Electromagnetic Fields
Clusters of Atoms and Molecules	Topics in Atomic and Molecular Spectroscopy
Atomic Scale Scanning Microscopy	Waves in Plasmas (Laboratory and Universe)
Progress in Solar Cells	Theory of Correlated Electron Systems
High Energy Physics	History of Physics
Free Electron Lasers	
Physics of Low Dimensional Systems	

**Special Symposium: Physics and the Environment**