



**Announcement of the 399. WE-Heraeus-Seminar**

# **Synergetics: self-organization principles in animate and inanimate systems**

**Symposium in Honour of Prof. Herman Haken's 80th Birthday**

Physik-Zentrum Bad Honnef  
Hauptstraße 5  
53604 Bad Honnef  
Germany

**22. – 24. Oktober 2007**

## **Aims and Scope of the Seminar:**

In numerous systems of living and nonliving nature, complex spatiotemporal patterns of self-organization processes can be found. Such processes are extremely important in physics, biology, chemistry, medicine, and in the engineering and social sciences. Understanding such processes has not just changed physics; it has also led to improvements in our daily life. Hermann Haken, who is celebrating his 80th birthday this year, is a pioneer in this respect, having laid the mathematical-physical basis for the description and analysis of self-organization processes with his theory of synergetics.

Since it was founded, this field has experienced rapid growth, both in terms of the mathematical-physical

methodology and the success that has been achieved with it in the areas it has been applied. This branch has great potential. It will have even more potential if the different fields of application – physics, chemistry, biology, medicine, psychology, engineering and sociology – share their advanced and sophisticated methods, as well as their experiences, with each other. This is one of the aims of the symposium. Moreover, the planned WE Heraeus Seminar is intended to give young scientists an understanding of the allure and potency of this branch of research. This symposium is also intended to honour one of the most important pioneers in this branch of science, Hermann Haken, on the occasion of his 80th birthday.

## **Oral presentations given by:**

Andreas Daffertshofer (Amsterdam)  
Rudolf Friedrich (Münster)  
Theo Geisel (Göttingen)  
Robert Graham (Duisburg-Essen)  
Fritz Haake (Duisburg-Essen)  
Hermann Haken (Stuttgart)  
Axel Hutt (Ottawa)  
Viktor Jirsa (Marseille)  
Yuri Maistrenko (Jülich)  
Alexander S. Mikhailov (Berlin)  
Arkady Pikovsky (Potsdam)  
Marko Robnik (Maribor)  
Axel Schenzle (München)  
Lutz Schimansky-Geier (Berlin)  
Eckehard Schöll (Berlin)  
Peter Tass (Jülich)  
Wolfgang Weidlich (Stuttgart)

## **Participation:**

We invite, in particular, young scientists and members of research groups to apply for participation and poster contributions per Email to [p.tass@fz-juelich.de](mailto:p.tass@fz-juelich.de) using the registration form at :

<http://www.fz-juelich.de/portal/heraeus-seminar>.

## **Scientific Organisers:**

Peter Tass  
(Institut für Neurowissenschaften und Biophysik - Medizin (INB3), Forschungszentrum Jülich)  
Rudolf Friedrich  
(Institut für Theoretische Physik, Universität Münster)  
Fritz Haake  
(Fachbereich Physik, Universität Duisburg-Essen)