Warsaw Theory Institute to Open

From the left, Professors Jan Kalinowski, Józef Spalek and Antoni Sym, Director and Deputy-Directors, respectively, of the new Warsaw International Centre for Theoretical Physics.

Following a long tradition of excellence, the University of Warsaw’s Institute of Theoretical Physics, with the University Senate’s endorsement, will start operating next spring once an expansion of the Physics Faculty buildings is completed. The first assured activity will be a series of lectures in English for graduate students.

Resources have also been found for desktop editing facilities so that lecture notes of high quality can be published. Meanwhile, funding is being sought for post-doctoral fellowships and for distinguished visitors who would offer advanced courses. A programme of workshops and symposia underlining the multidisciplinary aspects of modern physics would round out activities (the first workshop — on strongly correlated fermions — will be held next summer).

The ICTP Warsaw clearly has, by any reckoning, the potential to vigorously promote modern physics within central and eastern Europe. For further information, please contact the Director or either of the Deputy Directors at the ICTP, Warsaw, Faculty of Physics, Warsaw University, ul. Hoza 69, PL-00 681 Warsaw (tel.: +48-2-628 33 96; fax: +48-22-21 94 75; e-mail: kalino @ fuw.edu.pl).

Postdoc position (m/f) for theoretical research on colloidal crystals

Within the Physical Transport Phenomena Section of the Department of Applied Physics of Eindhoven University of Technology one of the research groups is working on suspensions. This group is supported by the Dutch Foundation for Fundamental Research on Matter (FOM). It is also part of the J.M. Burgers Centre, a recently established research school. The group has a vacancy for a postdoc physicist. In our group theoretical, experimental and numerical investigations have been performed in the field of suspensions in flows with velocity gradients and colloidal crystals. The experiments are based on light scattering and photon correlation measurements. The theoretical research up till now was directed primarily at methods to calculate the influence of hydrodynamic interactions on mobilities, diffusion coefficients, viscosity and sedimentation velocities, both in quasi-static approximation and with full account of retardation. Numerical work is necessary to eventually obtain concrete results.

Specification of duties
The applications of the methods mentioned above is very attractive due to the periodicity of colloidal crystals. It will be possible to reduce the N-particle problem to a problem of free quasi-particles. Through this method the project aims at gaining theoretical insight in the properties of colloidal crystals, especially mobilities, viscosity and sedimentation velocities. Also research will be started concerning the influence of hydrodynamic interactions on the dispersion relations for longitudinal and transverse waves.

After the necessary adaptation of existing theory to this problem, numerical implementation will be required. This is how to acquire a “workstation”.

Requirements
Recently you obtained a PhD degree on a physics topic or you will obtain a degree very soon. As a result you have excellent experience in theoretical research and computer calculations.

You are interested in Fluid Mechanics and Statistical Physics.

Conditions of employment
You will be employed by the Foundation FOM (Fundamental Research on Matter) on the basis of a temporary contract for the period of one year. The gross salary amounts to Dfl 5,796.-- per month, max. The employment conditions closely follow the Dutch Civil Servants Code, including admission to the “Algemeen burgerlijk pensioenfonds” (pension fund).

Information
Prof. dr. ir. P.P.J.M. Schram, telephone +31-40-472713 (473110 in case of absence), will be pleased to give further information.

Application
Your written application should be directed within two weeks after publication of this advertisement to the Department of Applied Physics of Eindhoven University of Technology, c/o prof. dr. ir. P.P.J.M. Schram, Building W&N, Eindhoven University of Technology, P.O. Box 513, 5500 MB Eindhoven, The Netherlands.