

1993 Amaldi International Prize

for a High School Physics Textbook **CALL FOR NOMINATIONS**

The Edoardo Amaldi Foundation, with the joint sponsorship of the European Physical Society (EPS), seeks nominations for an ECU 20 000 prize in memory of contributions by Edoardo Amaldi and his wife Ginestra to physics and science teaching in high schools. The prize will be awarded for the first printing of a high school textbook in physics (14- to 18-year old students) published between 1 January 1987 and 30 September 1993. The author, who must be European and working in Europe in a country whose national society is a member of EPS, will receive ECU 16 000; the publisher receives the balance. Innovation in high-school teaching is a prime consideration.

Interested authors or publishers (with an author's consent) are invited to apply by sending, by **30 September 1993**, two copies of the volume to: Amaldi International Prize Secretariat, Via Mazzini, 62, I-29100 Piacenza. Applicants will subsequently be asked to send five additional copies to Members of the Jury nominated jointly by the Foundation and EPS.

The Jury can decide not to award the Prize, which cannot be shared. It will be handed over in Piacenza in Spring 1994 and the textbook would be expected to carry a special wrapper bearing an inscription and the Prize's logo.

SCUOLA NORMALE SUPERIORE

Saint Gobain Post-doctoral Fellowship

on the Physics of Disordered Materials

Applications are invited for a Saint Gobain post-doctoral fellowship tenable for a calendar year at the Scuola Normale Superiore di Pisa, starting from 1st September 1993. This fellowship carries a stipend of 27,000,000 Italian Lire per annum, and may be renewed for a second year.

Applications addressed to **Prof. E. Picasso, Director, Scuola Normale Superiore, Piazza dei Cavalieri 7, I-56126 Pisa, Italy**, should reach Pisa *no later than 31 May 1993*.

Venjamin Chebotaev



Venjamin Chebotaev died of a heart attack on 2 September 1992 at the age of 57. He was on a short visit to Tucson, Arizona, while spending a year in Munich on an Alexander von Humboldt award. Laser spectroscopists were deeply shocked for they lost one of the most talented colleagues, who was not only collaborative and inspiring but also an outstanding teacher and a warm-hearted and lively person.

Venjamin was born in Knibishev located near the mid-point of the Volga River. He inherited the spontaneous openness of his countrymen. World War II took him to Novosibirsk where he graduated from the Institute of Electronics in 1960, and received his doctoral degree in physics and mathematics in 1972. He then set about building up a laser spectroscopy group at the Institute of Thermophysics in Akademgorodok-Novosibirsk, eventually becoming the Vice-Director. He was named only a year before his death as the Director of the Institute of Laser Physics which had been specially created for him.

Chebotaev's achievements over the years can be viewed as a string of precious pearls of ever increasing beauty. The hollow cathode laser developed by him in 1965 was the first laser to be operated in Siberia. Following Lamb's theory of non-linear effects, the absorption of gas lasers, Chebotaev (simultaneously with Lee and Scolnick in the USA) demonstrated intercativity and later extracavity Doppler-free resonances in different gases. This was a cornerstone in the development of Doppler-free saturation spectroscopy, later applied worldwide to study the properties of atoms and molecules with the highest precision. At the same time Chebotaev observed optical hysteresis and bistability using nonlinear absorption (the latter becoming important in optical computers and storage devices).

In 1970, Chebotaev showed that two-photon absorption was a new and very powerful technique for Doppler-free spectroscopy. It turned out to be one of the most important methods for ultra-high precision, particularly in hydrogenic systems. He also measured the tiny recoil effect in the absorption of photons by atoms. Following Ramsey's approach for separated oscillatory field resonances, Chebotaev was able to transfer the idea to separated coherent optical fields, and detected signals in two- and three-level systems, seeing two-photon resonances and spatial optical echoes.



UNIVERSITETET I TRONDHEIM
DEN ALLMENNVIITENSKAPELIGE HØGSKOLEN

Professorship in Theoretical Particle Physics

is vacant at the Department of Physics, College of Arts and Science, University of Trondheim. A main activity in the theory group at the department is in elementary particle physics and astrophysics.

We want to hire a person with a strong background in theoretical particle physics, who can strengthen our activity in CERN-related research. It will be considered an advantage if, in addition, the appointee can support activities in high-energy astrophysics and cosmology.

Applications should include a curriculum vitae and a list of publications, in 6 copies, and be sent to

**Universitetet i Trondheim, AVH,
Personalkontoret, N - 7055 Dragvoll, Norway,**

before May 3, 1993. Please quote reference number 1663 in the application.

Within June 3, 1993 the applicants are furthermore supposed to provide 5 copies of the scientific papers they consider most important. The number of papers sent in should normally not exceed 10. A description of these papers, in six copies, should also be included.

For a more detailed description of the position and further information about the application procedures, interested applicants should contact

**Professor Kjell Mork, Department of Physics,
University of Trondheim, AVH, N-7055 Dragvoll, Norway.
tel.:+47-7-591865 Fax.:+ 47-7-59 18 52; e-mail:kjell.mork@avh.unit.no.**