

ABSTRACTS

Reif I. E. Remarks on the Physicist's Fate. Those of Russian physicists who keep abreast of the technical literature in the field of laser studies may still remember that many a foreign scientific publication related to Reagan's "star wars" program mentioned the article "Amplification in the Recombining Plasm," written by L. I. Gudzenko and L. A. Shelepin and published in the "Reports to the USSR Academy of Sciences" in 1965, as number one reference. This paper is devoted to the fruitful and difficult career of L. I. Gudzenko, overviewing his diverse interests and major achievements in theoretical physics, as well as his role as the soul of an informal scientific circle whose members thought little of ranks and degrees, but made much of creative work and open debate.

Borisov V. P., Volkov A. V. The Plenipotentiary of the Russian School of Applied Mechanics (New Materials on the Life and Work of V. I. Iurkevich). The article provides a biographic account of a prominent Russian engineer-shipbuilder, Vladimir Iurkevich (1885-1964). A graduate of the Saint-Petersburg Polytechnic Institute, Iurkevich started his career as an engineer at the Baltic shipyard, working in its divisions at the Kronstadt port and in Revel (Estonia). In 1918, he moved to Ukraine, where he worked at the Nikolaev division of the Baltic shipyard until his emigration in 1920. Having fled from the new Soviet regime, Iurkevich first settled in France, where he became widely known for designing its famous transatlantic steamer, "Normandie." In the 1930s, the "Normandie" was the fastest and the most comfortable passenger ship in the world. From 1937 on, Iurkevich lived in the United States, where he worked as a consultant of the Naval Administration.

Krivonosov Iu. I. S. I. Vavilov: Cosmic Studies and Secrecy. The article presents and discusses a letter of S. I. Vavilov to Stalin, discovered by the author in the Archive of the Scientific Division of the Soviet Communist Party. Written in 1948, in the aftermath of the government decision to classify all work in the field of physics, supposedly related to the Soviet atomic project, the letter concerned the publication of current results obtained by the Soviet physicists in the study of cosmic rays. The then President of the Soviet Academy of Sciences and a physicist himself, S. I. Vavilov was anxious that even those works of his colleagues which contained no state secrets whatsoever couldn't be published openly any longer. This decision, he thought, deprived the scientists of the possibility to keep abreast with the new developments in their field and to be judged by their peers. In conclusion, S. I. Vavilov proposed a number of criteria to distinguish the studies which it was nonsensical to keep in secrecy.

Smith R. Varieties of History of Science in Britain. The study of the history of science in Britain is very diverse. There is no one center of institutional activity which dominates the field, no unified view of the proper scholarly method, no agreement about whether the field has a core subject matter or what it is. This variety has supported much creative and productive work. This paper gives a survey of this variety of activity in a historical perspective. It describes the principal changes in the field in Britain from the 1960s to the present. The discipline of the history of science in the United States is larger and more unified, but the relatively small scale of activity in Britain has permitted much variety and debate. The paper asks: Who do historians of science write for? At the beginning, the main audience was natural scientists themselves, or philosophers interested in epistemology, but this has changed. Many British historians of science now write for an audience of historians or professional historians of science. In recent years, historians of science have become involved with debates about what in Britain is called "the public understanding of science" — the question of public and political support or opposition to natural science.

The main part of the paper describes the development of the most influential areas of research and writing. The criticism of positivist views of science in the 1960s led to a field called "the history and philosophy of science," which showed how philosophical assumptions influence all scientific knowledge, and used the history of science to analyze the nature of rationality. From about 1970, however, history and philosophy in the field began to separate from each other. Historians of science were influenced by the practice of general history, became more rigorous about historical evidence, and became committed to understanding knowledge in context. At the same time, innovations in the sociology of knowledge had a large impact in Britain. In the 1980s, debates in historiography — the writing of history — and the "humanities" (in subjects like literary and cultural theory, and philosophy), lead to analyses of scientific knowledge and scientific life as comparable to other areas of culture. More recently, there has been interest in the practice of science, the experimental, material, and biographic factors which give a local character to each aspect of science and make it necessary to look at particular events if change in science is to be understood.

The paper intends to be a guide to the field in Britain, to indicate what the main lines of research have been, and to explain historically why these lines of research have had influence. It provides references and a summary of the different arguments, along with many specific examples of the work which has been done. The paper comments on the consequences of writing the history of science for different audiences, not only for an audience of natural scientists. The purpose of the paper is to provide resources for debate about what the field of the history of science should be.

Andreev A. Iu. "The Goettingen Soul" of Moscow University: An Account of Scientific Interactions between Moscow and Goettingen in the Early 19th Century. The German cultural centers played an active role in the development of scientific thought in Russia, and Goettingen University made a major contribution to this process. Scientific contacts between Moscow and Goettingen were most pronounced in the early 19th century, when a number of leading professors from Goettingen were invited to teach at Moscow University, while Moscow students made numerous educational trips to Goettingen. These exchanges, leading to the birth of new scientific schools in Moscow, also gave the Russian students first-hand experience of the German culture. On the basis of various historical sources, some of them hitherto unpublished, the article draws a picture of student life in 19th-century Goettingen, on the one hand, and overviews the problems faced by the German scientists in the course of their integration into Moscow university environment, on the other. As the author concludes, the overall impact of these interactions upon Moscow University was definitive in shaping its future development into one of the leading educational and scientific institutions, not only for Russia, but also for Europe on the whole.

Ilizarov S. S., Zhidkova A. A. Dress Coats for Soviet Professors: An Unfulfilled Project of 1949. In the late 1940s, the Soviet Union witnessed the peak of totalitarianism, marked by especially strong unification tendencies. The Stalinist regime culminated in the restoration of the "Table of Grades" system, whereby every Soviet official was given a special rank, to be accompanied by characteristic external attributes — badges and dress coats. Indicative of this process was a special project advanced by the Soviet authorities in 1949, recently excavated from the archives by the authors of this paper. According to it, each and every representative of Soviet system of higher education — from the minister of science to the fresh student - had to be dressed in a special paramilitary uniform.