

GP 10: Sowjetunion

Time: Wednesday 9:15–11:15

Location: HSZ 204

Invited Talk GP 10.1 Wed 9:15 HSZ 204
The Cold War and Soviet Physics — ●ALEXEI KOJEVNIKOV — University of British Columbia

The Cold War had both obvious and not so obvious consequences for Soviet science. The former included dramatically increased public prestige of science and a jump in government funding for research, much stronger linkages between scientific and military establishments, a tightening of security restrictions and of the political surveillance of scientists. Among the latter one notices a de-facto convergence of major research goals and strategies pursued by scientists on opposing sides of the Iron Curtain (despite their ideological and political differences), and some unexpected international ramifications of the 1957 launch of Sputnik. The presentation will analyze these major trends and exchanges across the Cold War frontier, including mutual borrowing and influences between the Soviet and American R&D programs. It will also intend to demonstrate how some of the very successes of military-oriented research programs started undermining the Cold-War defined scientific priorities and forms of life, leading to noticeable shifts by the early 1960s.

GP 10.2 Wed 10:00 HSZ 204
The Soviet dialectical-materialist view of the Universe and the Big Bang theory (1931-1991) — ●MAURO STENICO — Johann-Wolfgang-Goethe Universität, Frankfurt am Main

Starting from 1929-31, the Soviet government began to impose several restrictions upon Russian scientific community: scientists had to attain to the distinction between "proletarian" and the "bad reactionary" science of the West, whose cosmological expression was at the time the theory of the expanding universe. Mathematically formulated by Alexander Friedmann (1922) and physically developed by Georges Lemaître (1927), the theory was interpreted as the last manifestation of the decadent Western bourgeoisie, which had proposed this "fideistic" tale to save divine Creationism for keeping on exploiting proletariat thanks to its submission to "religious opium". After the war, ideological influence on Soviet cosmology was even stronger: in 1946 Stalin decided for a final depuration of Soviet culture. In 1947, Andrej Zhdanov began the official campaign against *Western* dynamical cosmology. The analysis of Soviet astronomical publications reveals a new trend during the de-stalinization era, when Russian astronomers began to

publish in favor of the Big Bang theory and to ask for international collaboration. Starting from the Sixties, the theory was scientifically analyzed even in the USSR and Soviet cosmologists contributed to it in a very fruitful way.

GP 10.3 Wed 10:25 HSZ 204
Cold War, Quantum Foundations, and East-West Collaboration — ●ANJA SKAAR-JACOBSEN — Niels Bohr Archive, Copenhagen

It is well-known that the cultural cold war changed the ideological line in the Soviet Union from the late 1940s and that this had serious implications for the autonomy of research in genetics and quantum foundations in the East bloc. However, besides the more narrow concern from the point of view of research in quantum foundations, I want to suggest that the ideological impact on quantum foundations also constituted an obstacle for attempts by Western physicists to bring about a rapprochement between physics in the east and west in general. In connection with re-establishing East-West co-operation between physicists after Stalin's death in 1953 this obstacle needed to be cleared away. In my talk I will discuss these issues and how the Institute for Theoretical Physics in Copenhagen came to be an important meeting place for physicists from the East and West from the mid-1950s.

GP 10.4 Wed 10:50 HSZ 204
Cold War in the Periphery: Greek Physicists on Atomic Energy after World War II. — ●GEORGE N. VLAHAKIS — Institute for Neohellenic Research, Athens

This paper examines the views of the Greek physicists on the concept of Atomic Energy and its possible applications after World War II, especially during the period of the Cold War. We intend to present the opinions of professors of physics in the Greek Universities like D. Hondros, once student of A. Sommerfeld and collaborator of P. Debye in the early days of his career, as well as to discuss the policy of the Greek government for the establishment of a research institute devoted to the development of the atomic energy. A survey of the public opinion on the subject as it was presented on the daily press of this period will be also given.. In the last part of the paper we discuss the argument that even when the conditions are favorable for a country of the scientific and political periphery to move towards the centre, this seems to be rather impossible.