

# Between Ideology and Science: Dialectics of Dispute on Physics in 1920s–1930s Soviet Russia

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## Abstract

This paper examines the relationship between Soviet scientific community and authority in the Stalin era by investigating how specialists of physical sciences and communist ideologues deal with interpretation of physical theories or concepts in the 1920s and 1930s. Soviet physico-philosophical disputes have often been regarded as a persistent attack on modern physical theories by well allied ideologues or ignoramuses. Minute study of historical documents with a consideration of socio-political context tells us, however, that this view must be radically revised. Attacks on leading physicists were not well formed, except for the comparatively short period of the Great Terror. Physicists also sought to find the way of description of physics, which is compatible with Marxist ideology dialectical materialism. We will suggest that it will be suitable to grasp the process of dispute as one of acquiring “Soviet Newspeak”, not as a success on showing the correctness or usefulness of physics by leading physicists.

**Key words:** Dialectical Materialism, Science in the Soviet Union, Sergei Vavilov, Ideology and Science, Philosophy of Physics

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## Introduction

Scientism is one of the traits for which the Soviet Union was known. Lenin’s famous phrase that “communism is Soviet authority plus electrification” symbolizes Bolshevik’s high evaluation of science and technology. The combination of science and technology was seen as the key practical tool in this new state for competing, economically and militarily, with developed countries<sup>1</sup>. In the 1920s, scientists and technicians enjoyed political support even when they did not sympathize with Bolshevik ideology and its adopted policy of the dictatorship of the proletariat<sup>2</sup>. The threat of imagined or real wars, which was felt

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<sup>1</sup> On importance of science and technology for the Soviet Union, see, the paper by Alexei Kojevnikov, which is included in the special issue of this volume.

<sup>2</sup> On relationship between scientific intellectuals and Soviet state in the first days of the Soviet Union, see: Nathan M. Brooks, “Chemistry in War, Revolution, and Upheaval: Russia and the Soviet Union, 1900–1929,” *Centaurus*, 39 (1997): 349–367; Alexei Kojevnikov, “Dialogues about Knowledge and Power in Totalitarian Political Culture,” in *Stalin’s Great Science* (Imperial College Press, 2004), pp. 276–300; esp. 287–291; Gennady Gorelik, *The World of Andrei Sakharov: A Russian Physicist’s Path to Freedom* (Oxford University Press, 2005), pp. 24–26.