

Parallel Worlds: Formal Structures and Informal Mechanisms of Postwar Soviet Mathematics

Slava GEROVITCH*

Abstract

The postwar period is often viewed as the “Golden Age” of Soviet mathematics, yet the mathematical community in that period faced serious constraints. Restrictions on foreign travel, limited access to foreign literature, obsessive secrecy regulations, an obsolete university curriculum, the declining level of the faculty, discriminatory policies in university admissions and employment, and limitations on physical access to universities and research institutions—all these factors worked against the creation of a fully functional research community. This article argues that the thriving of Soviet mathematics in that period was due to the creation of a parallel social infrastructure. Soviet mathematicians organized a network of study groups (“math circles”), correspondence courses, and specialized mathematical schools in major cities, opened free courses for students barred from top universities, offered employment at applied mathematics institutions to talented researchers who were denied academic positions, and developed an extensive system of open research seminars, bringing together multigenerational groups of researchers and fostering collaboration and the spread of new ideas.

Key words: Soviet Union, mathematics, education, politics, discrimination

The game approach to problem-solving allows us to do things
that cannot be fully analyzed by formal means.

Israel Gelfand¹

A “Golden Age”?

The period from the 1950s through the early 1980s is fondly remembered by Russian mathematicians as the “Golden Age” of Soviet mathematics.² “Golden ages” usually have little to do with the actual achievements of the past; they rather reflect the frustrations and

* Massachusetts Institute of Technology, Cambridge, Mass., U.S.A.

¹ “Protokol zasedaniya Uchenogo soveta OPM MIAN,” June 28, 1960; Archive of the Russian Academy of Sciences, Moscow (hereafter ARAN), f. 1939, op. 1, d. 20, l. 38.

² Smilka Zdravkovska and Peter L. Duren, eds., *Golden Years of Moscow Mathematics* (Providence, RI: The American Mathematical Society, 1993).