S-82 – Global Mathematics

The History of Mathematics

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Abstract:

Mathematics today is presented as a global discipline. Mathematicians regularly travel thousands of miles to present their work and to collaborate. They share ideas and findings in an interconnected community that spans nations, languages, and continents. Our symposium on “Global Mathematics” assembles a range of historical and ethnographic perspectives on the emergence and consequences of this global system of mathematics from the late nineteenth century to the present. While the preceding period of “internationalization” in mathematics has received considerable scholarly attention over the last few decades, historians have only recently begun systematically to scrutinize later developments that saw mathematicians joined on a significantly broader scale. We examine mathematics “between the Global and the Local” through analyses of the individual and institutional circumstances that made global mathematics possible, situating them in their social, economic, cultural, political, technological, and scientific contexts. With these analyses, we situate mathematics in an emerging literature on global science while also marking where the story for mathematics departs from recent findings concerning other fields.

Speakers will relate changing mathematical theories and images of mathematics as a discipline in the period of globalization to the changing professional contexts of mathematical work and collaboration, as well as the changing values and infrastructures of mathematics education. These changes are evident in the shifting relations between national and regional mathematical communities, in the emergence and effects of new transnational institutions, as well as in particular communities’ responses to new global connections. We trace an arc through the two World Wars and the Cold War and its aftermath, showing how new geographies of power and prestige were manifested through new modes of communication and travel as well as new ideas about the nature and content of mathematics and their relation to the goals of state and society. The symposium will combine new historical accounts with new historiographical approaches to understanding the distinctive phenomena of global mathematics. With speakers and subjects-matter ranging across continents and hemispheres— principally focused on, but not limited to, the Americas (South and North), Europe (West and East), and East Asia—we aim to foster productive comparisons and to recognize connections and convergences not immediately visible in individual studies. Such encounters will shed new light on the effects of scale, place, ideals, and practices in constituting professional mathematical communities and mathematically-literate societies that became interconnected, in the last century and a half, as never before.
Keywords: history of mathematics – globalization – communication – mathematics education – long twentieth century.

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