She Proved: Voices of Women in Mathematics

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This talk challenges the conventional narrative of the history of mathematics as a neutral sequence of great names, discoveries, and canonical results. While figures such as Newton or Lagrange undeniably transformed scientific thought, the standard account obscures a fundamental reality: mathematics has always been a collective endeavor shaped by countless contributors, many of whom remain unrecognized. Among them were women — far more numerous and intellectually active than traditional historiography suggests.

The apparent absence of women from mathematical history is not a reflection of their non-participation, but rather the result of systematic omissions shaped by social, cultural, and institutional constraints. Across antiquity and the early modern period, women's access to education, scholarly networks, and formal scientific institutions was severely restricted. Even when women engaged in mathematical work — through private study, correspondence, or informal intellectual circles — their contributions were often published anonymously, attributed to male colleagues, or excluded from archival preservation altogether. As a result, historical memory has rendered their work largely invisible.

This talk argues that the marginalization of women in the history is rooted both in the conditions of knowledge production and in the mechanisms of historical transmission. Women who pursued intellectual life frequently faced suspicion or hostility, as their activities transgressed prescribed social roles. Consequently, when they do appear in historical sources, they are often portrayed as anomalies rather than as participants in broader intellectual communities. By re-examining overlooked sources and reconstructing fragmented biographies, this study seeks not to revise the mathematical canon, but to expand its interpretive framework. It highlights the diverse ways in which women contributed to mathematical knowledge: as educators, correspondents, problem-solvers, and originators of ideas that later became integral to the discipline. Their stories reveal a more complex and interconnected history, in which mathematical development emerges from networks of collaboration rather than isolated genius.

The talk also situates these contributions within a long temporal perspective, tracing the presence of women in mathematical activity from pre-classical civilizations to the late nineteenth century. The scientific achievements of Marie Sklodowska-Curie serve as a symbolic turning point, marking both a transformation in scientific understanding and a shift in the visibility of women within the scientific community. Ultimately, we propose a reorientation of the historiography of mathematics: away from a linear, hero-centered narrative and toward a more inclusive account that acknowledges the structural conditions under which knowledge is produced and remembered. Recovering the voices of women in mathematics does not constitute an auxiliary addition to an established story; rather, it reshapes our understanding of that story itself, revealing it to be richer, more diverse, and more profoundly human.

References

[1] Ivanova N.M., She Proved: Voices of Women in Mathematics. Part 1: Ancient World, Eastern and African Traditions, 2026, in preparation, 151 pp. (in Ukrainian).

[2] Ivanova N.M., She Proved: Voices of Women in Mathematics. Part 2: History of Europe and the Modern World, 2027, in preparation (in Ukrainian).