

Mathematics for Political and Social Scientists

Dates: 22 –26 September 2025

Time: 10:00-12:00

Sala del Capitolo, Badia Fiesolana

Instructor: Ivan Fomichev, SPS Researcher

Register [online](#)

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The objective of this 10-hour workshop is to provide a refresher into basic algebra and calculus, specifically for those with no or little background in mathematics and probability, and to demonstrate how mathematical concepts – derivatives, integrals and matrices – are applied in statistics. The workshop is not designed to be mathematically intensive: the main goal of the workshop is to build intuition and conceptual understanding rather than concentrating on calculations and procedures. For those who would like to further solidify their understanding, all necessary materials and links to useful resources will be provided.

No previous knowledge of calculus or linear algebra is required. Slides and materials will be provided to anyone interested.

Knowledge of algebra and calculus is increasingly crucial in quantitatively-oriented political and social science, allowing researchers to understand better, manipulate and develop statistical methods and formal theory. This knowledge will also help researchers to keep the pace of first term quantitative methods courses. Next to providing a refresher into basic algebra and calculus, the workshop discusses examples of their use in political and social science practice.