



GROUPS, LOGIC, AND COMPUTATION. GAGTA-2025

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Gradarius

Applied AI in Mathematical Research: A Practical Workshop.

June 6–13, 2025

Abstract:

(Laptops required)

This hands-on workshop explores the integration of Large Language Models with Computer Algebra Systems to create powerful research assistants for mathematicians. Participants will build a customized tool that combines the symbolic processing capabilities of CAS with the natural language understanding of LLMs.

Over 90 minutes, attendees will learn to design prompts that leverage mathematical reasoning, implement code that interfaces between CAS computations and LLM interpretation, and develop practical workflows for their research process. Parts of the workshop assume familiarity with programming fundamentals, with at least basic Python knowledge.