Thematic issue of NOMAD 2027
Call for papers

Algebraic practice in classrooms and beyond

To meet the needs of the 21st century societies it is necessary to change the nature of algebra teaching. Challenges such as climate change and pandemics require understanding of patterns of growth and change of complex systems, and engaging in public discourse about these challenges requires the ability to argue in general terms about abstract quantities. Algebra is the area of mathematics focusing on generalization, but for many people, school algebra consists of rearranging strings of symbols according to rules, without developing the ability to reason with generalizations. There is a need for approaches to algebra learning and teaching that develop the ability to use generalizations to describe, analyze and solve problems in real life, as well as within mathematics, an ability we call "algebraic practice". Central topics relevant for this thematic issue are for example:

- *Teaching methods*: approaches to teaching algebra and the development of algebraic practice in school and at university levels.
- *Frameworks for teaching and learning algebra*: theoretical contributions regarding how to understand and analyze algebra learning and teaching.
- *Deductive reasoning*: contributions that investigates argumentation as a central aspect of an algebraic practice, in which results are deduced rather than only arrived at inductively by noticing patterns in examples.
- *Representations*: empirical and theoretical contributions that investigate the role of representations in the development of algebraic practice.
- *Algebraic practice in pre- and in-service teacher education*: innovative approaches aiming to bridge the gap between theory and practice addressing algebra teaching.
- *Transitional issues*: content related transitions such as the movement from arithmetic to algebra, but also how students cope with algebra as they transition to new levels in educational systems (i.e. from primary to secondary, from secondary to university).

– *Different research methods*: methodological approaches, as well as discussions of innovative methods for the collection and analysis of data to investigate learning and teaching algebra and the development of algebraic practice.

The intention of this thematic issue is to bring together the Nordic and Baltic field of research on the teaching and learning of algebra. We will therefore invite contributions from all Nordic and Baltic countries, covering a broad spectrum of foci and approaches to the development of algebraic practice from all school levels.

To be accepted for this issue, papers must meet the regular requirements of Nomad [see https://ncm.gu.se/authors]. Submitted papers will be reviewed by at least two other researchers through a double-blind peer review. Authors are expected to participate in the review process by reviewing other contributions. Authors who wish to contribute to this issue are invited to send a brief outline of the intended paper, in the form of an abstract, to Cecilia Kilhamn, cecilia.kilhamn@ncm.gu.se.

Editors for this thematic issue of Nomad will be:

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Timeline

May 15, 2025. Abstracts to be submitted, containing 300–600 words and 3–5 keywords.

June 15, 2025. Feedback on abstracts.

January 15, 2026. Full papers to be submitted.

March 15, 2026. First round of reviews completed.

April 15, 2026. Feedback to authors from editors.

September 1, 2026. Submission of revised papers.

November 10, 2026. Second round of reviews completed.

December 10, 2026. Feedback to authors from editors.

February 1, 2027. Final revisions to be completed.