Call for Papers: Special issue on Computational thinking and Mathematics teaching and learning

Guest Editors
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The Scope
There has been an emerging international conversation about computational thinking, while being increasingly integrated in school classrooms and curricula in countries worldwide. Computational (algorithmic) thinking, programming, and coding are relevant in particular to the discipline of mathematics, and to other areas such as STEM, data analytics and robotics.

This Special Issue is intended to provide a forum to discuss diverse issues related to the mathematics curriculum and classroom teaching and learning. It will seek to clarify and explain these international trends and their growing impact on the curriculum, classroom practices and learning– in the compulsory years of schooling as well as in the senior high school years. In particular, this special issue will be relevant to teachers, mathematics curriculum experts, and teacher educators who are engaged in or keenly interested in these issues, from a practical point of view (expected to be made explicit in the discussion).

The following areas in the context of mathematics education outline the possible scope of this special issue, but not limited to. The special issue will aim to present a balance across different areas

- Interfaces between computational thinking, Computer Science and Mathematics and their relationship to the school curriculum.
- Exploring and evaluating different models of teaching and learning for computational thinking.
- Computational thinking as an agent for national curriculum reforms.
- Investigating the genesis and evolution of meaning of the term computational thinking, and its impact on curricula.
- Computational thinking in the primary and/or middle and/or high school curriculum, including in unplugged contexts
- Teaching of algorithmics and data analytics in the senior high school curriculum,
- Exploring links between computational thinking, mathematics in STEM and robotics
- Assessing computational thinking in classrooms and in large-scale national and international assessments
- Reviewing recent research on computational (algorithmic) thinking in school education

Submission Instructions
Abstracts should be sent directly to ijopr.editor@gmail.com. The guest editors will examine the submitted abstracts and inform the author(s) about the full-text submission.

The full-text manuscripts addressing the special issue's focus should be submitted through the Editorial Park manuscript submission system (https://www.ijopr.com/). Please see the Author Guidelines and Submission Preparation Checklist carefully before preparing your manuscript.

The Guest Editors would welcome contributions up to 7000 words, references and appendices included. Longer manuscripts will need to be approved.

NOTE: When submitting an extended abstract (500 words) please include "Computational thinking-abstract" in the email subject line. Regarding your final manuscript, please include a note in the field 'Comments for the Editor' indicating that the paper addresses "Computational thinking" special issue.

NOTE: Because all costs including plagiarism detection, layout and galley, references, attribution and attribution check for the special issues are covered by Octagon Education Services, authors are not charged any fee at any stage of the publication process.

Deadlines for authors

- Submission of Extended Abstracts: 1 June 2022
- Review of Extended abstracts and Acceptance of proposals: 1 July 2022
- Manuscript submission deadline: 15 October 2022
- First review decision on manuscripts: 20 December 2022
- Second review decision on manuscripts: 28 February 2023
- Final version submission: 31 March 2023
- Expected Publication: May 2023