# **Guest editors**

## Markku S. Hannula

Markku S. Hannula is the leader of the MathTrack project. Markku is the professor for mathematics education at the University of Helsinki, Faculty of Educational Sciences and until summer 2019 visiting professor at Volda University College, Norway. He has been elected as the president for the International Group for the Psychology of Mathematics Education for 2019–2022.

Most of my research has focused on despair, delight, and desire of mathematics learners. Mathematics anxiety, boredom, and lack of self-confidence are the destiny of all too many students, sometimes leading to destruction of their selfconcept as learners. On the other hand, problem solving that leads to flow and Aha!-experiences may bring joy and delight for students and lead to a desire to engage again with similar activities. I dream of designing teaching approaches that would let everyone engage with mathematics in a deeply satisfying and enjoyable way. Our MathTrack project aims to delve deeper into the area of collaborative engagement in mathematics learning and the role of student affect in student visual attention in the classroom.

Most of my publications have been around mathematicsrelated affect. Somewhat less known is my work in the area of problem solving. For the last couple of years, MathTrack has been the main area of my work. I am also leading the Finnish team in the international Lexicon project and – time permitting – leading the international Norba-TM study on mathematics teachers' beliefs. My network of collaborating is wide; I have joint research and/or publications with researchers from over 20 different countries.

I have supervised four PhD-theses: Emmanuel Adu-tutu Bofah, Laura Tuohilampi, Rauno Koskinen, and Jari Lakka. I currently supervise 11 doctoral students.

Contact: markku.hannula@helsinki.fi







# Eeva Haataja

Eeva Haataja is a doctoral student at Faculty of Educational sciences in the University of Helsinki in Finland. She works in in field of mathematics education in MathTrack research project. In her PhD project, Eeva explores teacher-student interaction from the viewpoint of visual attention and nonverbal communication in the context for collaborative mathematical problem solving. Prior to her position at the University, Eeva used to work as an elementary school teacher.



### Contact: eeva.haataja@helsinki.fi

## **Anu Laine**

Anu Laine is a docent in mathematics education and works as a university lecturer at the University of Helsinki. Now she works half of her time as a vicedean responsible for academic affairs at the Department of Educational Sciences.

Her main research areas are pupils' and preservice teachers' mathematics-related affect, problem solving, knowledge and communication. She is especially interested in non-standard problemsolving and affective factors in learning. She is involved in several international research projects.



She teaches courses in mathematics education and supervises students doing their bachelor, master and PhD thesis. She has supervised about fifty bachelor and master thesis and three PhD thesis. She is interested in developing teaching and she was appointed to Teachers' Academy at the University of Helsinki based on her teaching merits.

Contact: anu.laine@helsinki.fi

#### **GUEST EDITORS**

# Päivi Portaankorva-Koivisto

Päivi Portaankorva-Koivisto is a doctor in mathematics education and works as a university lecturer at Faculty of Educational Sciences at the University of Helsinki in Finland. Her main research interests are mathematics teachers' professional development and beliefs, multidisciplinary learning, especially mathematics and visual arts integration, mathematical problem-solving, and mathematics and language issues.

## Contact: paivi.portaankorva-koivisto@helsinki.fi

# Enrique Garcia Moreno-Esteva

Enrique Garcia Moreno-Esteva has been involved with the Faculty of Educational Sciences since 2012. The focus of his research in our project has been the development and application of methods to analyze our data.

Contact: enrique.garciamoreno-esteva@helsinki.fi



