

Frangiskos Kalavasis is Professor of Didactic of Mathematics and Educational Engineering at the Faculty of Humanities of University of the Aegean in Rhodes and Associated Researcher at the LAREQUOI (Laboratoire des Recherches en Qualité, Organisation, Intelligences) of Université Paris-Saclay, UVSQ in France.

PhD in Mathematics (1987) with a mathematical background at the University of Athens and Master degree on Didactic of Sciences-Mathematics and at the University of Paris VII.

His research approach focuses on the of reflective constructivist processes of the mathematical knowledge and of the intelligence of learning organizations. It is characterized by the attempt to investigate epistemological and psychogenetic dimensions in the construction of mathematical thinking and their interaction with the didactical situations as well as with the emergent intelligence of the school structure and with the family and social environment.

In the book 'Between the Part and the Whole. Reflective Construction of Mathematical Concepts' (2015, Gutenberg Publications) co-authored with Andreas Moutsios-Renzos, Assistant Professor at the University of Athens, he develops the above perspective in detail. He has published more than 100 research papers in scientific journals, conference proceedings and edited volumes. He has edited 22 scientific books and has been scientific director in international research projects (Erasmus, Tempus, Interreg II & III). He has organized national and international scientific conferences and research meetings at Rhodes, Athens, Volos, Veria and Serres (Greece).

In the field of Didactic of Mathematics, he has edited the five volumes Themes in Mathematics Teaching (1992, 1994, 1997, 1998, 2000) in collaboration with Michalis Meimaris, Professor Emeritus of the University of Athens. In the field of Educational Engineering he has edited thirteen (13) volumes Themes of Educational Design (2007-2024) in collaboration with his colleague Professor Anastasios Kontakos.

The particular emphasis of his work in Didactic of Mathematics is on the search for the relationship between representations and understanding of mathematical concepts, and the ways in which this relationship can be integrated into the Design of Mathematics Education in concrete educative conditions. From this perspective he has extended his research into issues of Educational Engineering and Learning Technology.

He has been oriented towards systems models for describing complex intelligence and approaching the broader concept of the Learning Organization (individual, collective, organization) with a view to applying it to School Governance. This is the field in which his long-standing collaboration with the LAREQUOI Laboratory is embedded.

He has been elected First Vice President of the Hellenic Mathematical Society, member of CIEAEM (International Commission for the Study and Improvement of Mathematics Teaching), as well as Dean of the Faculty of Humanities of the University of the Aegean and President of the Synod of the Pedagogical Departments of Greece and Cyprus.

For many years he was Chairman of the Editorial Board of the JME's Review of Mathematics Education "Euclid c" and he is the Director of the International Journal for Mathematics in Education (HMS I JME). He is the founder of the Laboratory of Learning Technology and Teaching Engineering at the University of the Aegean where he has supervised five (5) PhD theses, as well as the Postgraduate MSc "Science Teaching and ICT in Education: an interdisciplinary approach", where he was the director during the period 2014-2023.

He has published three poetry collections, *Colored Shadows* (2012), *The Variety of Repetition* (2015), *Enigmatic Touches* (2020), as well as the short story collection *Palindromic Short Stories* (2022).

Recent international publications

- Moutsios-Rentzos, A., Pinnika, V., Kritikos, G., & Kalavasis, F. (2020). Appearances of the equals sign in primary school mathematics and natural sciences: an interdisciplinary, systemic approach. *Quaderni di Ricerca in Didattica (Mathematics)*, 7, 285-294.
- Fragkiskos Kalavasis (2022). Mathematics and the real world in a systemic perspective of the school, *Les Cahiers de Recherche de Larequoi Vol. 2021/2, France*
- F. Kalavasis and A. Moutsios-Rentzos (2023) Re-constructing the Image of Mathematics Through the Diversity of the Historical Journeys of Famous Mathematicians in *S. Romero Sanchez et al. (eds.), The Role of the History of Mathematics in the Teaching/Learning Process, Advances in Mathematics Education, Ed. Springer*
- Fragkiskos Kalavasis (2023) Décrire l'indescriptible : les schémas de la complexité dans l'éducation, *Les Cahiers de la Chaire Réseaux et Innovations, No3*