

Computer Mathematics

JOÃO ARAÚJO, KEVIN BUZZARD, PEDRO QUARESMA

Resumo

Computers have since long been good friends of mathematics. They run the algorithms that enhance so much the applicability of mathematics to science and engineering. But lately computers seem to have become, beyond the powerful calculators we knew well, agents capable of reasoning and learning. Because of that, they promise, not only to aid mathematics, but even to change the face of it. Notwithstanding the aspects of computational mathematics or artificial intelligence, we glimpse a changed discipline, in the way it is produced, communicated, learned, and archived.

Sobre os participantes:

João Araújo holds a PhD in Mathematics from York University, UK, and is a full professor at Nova University. He is the founder and leader of the Laboratory for Augmented Intelligence Theorem Proving (LaiTeP). Araújo is a co-author of various Augmented Intelligence Theorem Proving (AgITP) packages and has published numerous papers in mathematical journals, including a theorem with a one-million-page proof and the resolution of \aleph_0 open problems using AgITP tools.

Kevin Buzzard is an algebraic number theorist. He was a PhD student of Richard Taylor in Cambridge UK, graduating in 1995. After post-docs in Cambridge, Princeton and Berkeley he got a lectureship at Imperial College in London in 1998, and is currently a professor of pure mathematics there. He gave a plenary lecture at the 2022 ICM on uses of computers in mathematics.

Pedro Quaresma is a mathematician, PhD in Informatics, Foundations of Computer Science, University of Minho, 1998. Develops his research in Automated Deduction, specifically in the area of geometry, its foundations and applications. With more than 80 peer reviewed publications. Member of the Steering Committee of the Automated Deduction in Geometry (ADG) and Theorem proving components for Educational software (ThEdu) conferences. He is a member of the Centre for Informatics and Systems of the University of Coimbra (CISUC), the research line Cognitive and Media Systems (CMS) and founder of the group GeoTiles, a research group involving researchers from different research centres, focused in the area of automated deduction, knowledge management and application in education, in geometry.