

Augmented Intelligence Theorem Proving in the Mathematical Literature

JOÃO ARAÚJO^a

^a CEMAT & FCT - Universidade Nova de Lisboa

E-mail: `jj.araujo@fct.unl.pt`

Sobre o orador: 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.

Sumário

Throughout history, mathematicians have utilized various augmented intelligence tools such as the abacus, mechanical calculators, and symbolic computation. These tools have significantly enhanced the efficiency and capability of mathematicians, allowing them to concentrate on higher-level tasks. In 1996, a computer developed at the Argonne National Laboratory successfully proved a conjecture that had eluded top mathematicians, including A. Tarski, marking the advent of the era of Augmented Intelligence Theorem Proving (AgITP). Almost 30 years after that key moment, this is the critical question: to what extent are AgITP tools effectively supporting professional mathematicians? Answers in the talk!