



Berlin
Mathematical
School

BMS Friday Colloquium

Friday 16 December 2016 at 14:15

Tea & Cookies starting at 13:00

BMS Loft, Urania, An der Urania 17, 10787 Berlin

Christoph Benz Müller

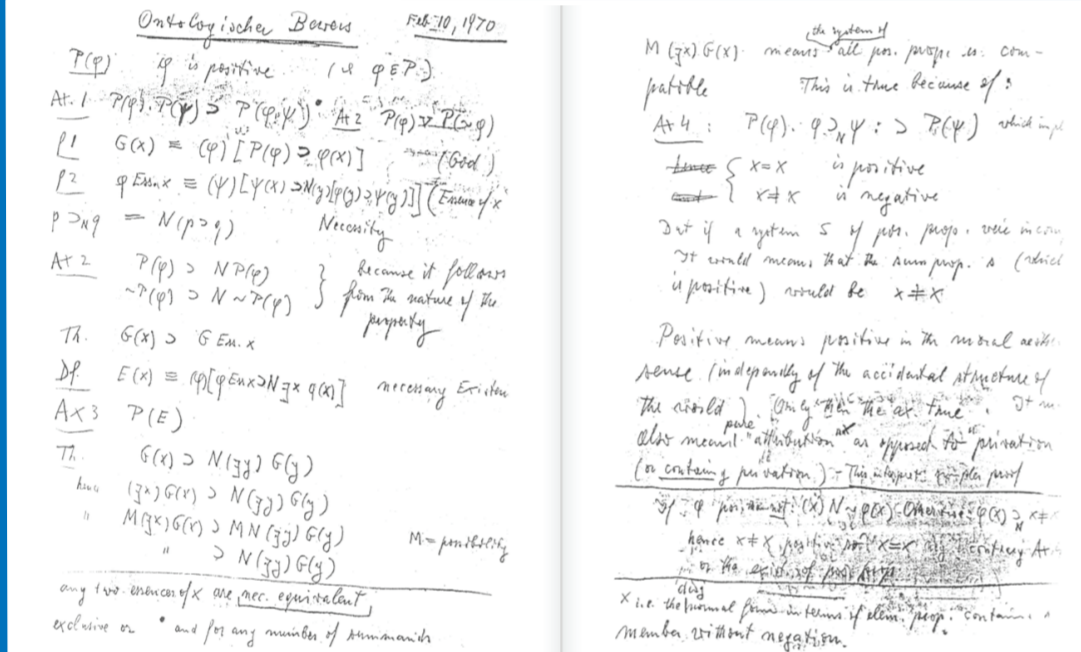
(FU Berlin)

Computational Metaphysics: The Virtues of Formal Computer Proofs Beyond Maths

Formal computer proofs—irrespective of being developed interactively with modern proof assistants, fully automatically by automated theorem provers, or in a combination of both—are still rather unpopular amongst many mathematicians. Benz Müller will challenge this stance and point to recent success stories of computer-assisted proofs in maths and beyond. In particular, he will demonstrate in detail how the rigorous assessment of rational arguments in philosophy can be fruitfully supported by modern theorem proving technology. A prominent example includes the “Ontological Argument for the Existence of God” for which even relevant new insights were recently revealed by automated theorem provers.

The latter research activities have inspired the conception of a new lecture course on “Computational Metaphysics” which brings together students from computer science, maths and philosophy. Selected student project posters from this award-winning course will be on display before the talk.

Benz Müller is currently affiliated with FU Berlin as a DFG Heisenberg Scholar. Previously, he held positions as a full and associate professor at the International University in Germany, Bruchsal and Saarland University, Saarbrücken, respectively. He has been working at the interfaces between artificial intelligence, computational logic, computer-supported mathematics, computational metaphysics, and computational linguistics in various projects at renowned universities, including Stanford and Carnegie Mellon (US), Cambridge, Birmingham and Edinburgh (UK), and Saarbrücken.



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