

## AGPhil 12: Poster (Monday - Friday)

Time: Monday 10:00–18:00

Location: H-HS III

AGPhil 12.1 Mon 10:00 H-HS III

**A survey on foundational issues** — PETR JEDLIČKA<sup>1</sup> and ŠIMON KOŠ<sup>2</sup> — <sup>1</sup>University of West Bohemia, Department of Philosophy, Pilsen, Czechia — <sup>2</sup>University of West Bohemia, Department of Physics, Pilsen, Czechia

As foundational debates are far from settled, in the past, a few authors tried to map out views on crucial issues in quantum theory, which confirmed ongoing deep rifts. The tradition originated with Max Tegmark and his 1997 poll (The Interpretation of Quantum Mechanics: Many Worlds or Many Words?, arXiv:quant-ph/9709032v1), in which he observed a gradual change in views in the past decades - the once dominant Copenhagen interpretation encountered its most

serious contender in the Many Worlds interpretation, followed by the Consistent Histories, Bohm and Modified dynamics (GRW/DRM). In 2013, Schlosshauer, Kofler, and Zeilinger continued the poll with an enlarged set of questions, which also pointed out to the role of philosophical biases (A Snapshot of Foundational Attitudes Toward Quantum Mechanics, arXiv:1301.1069v1).

We replicated an updated SKZ poll in the community of physicists, as a part of our larger interdisciplinary project on objectivity, which focuses on the understanding of this concept among natural scientists. Apart from quantum phenomena we also addressed other questions on the border of science and metaphysics, e.g. the objectivity of existence of various objects, the relationship between mathematics and physics, the future of the discipline etc.