

Colloquium Notice

Alexey Burov

FermiLab

Why the Universe is Pythagorean?

The physical laws are very special: they allow not only for life to appear and develop, but to develop up to high forms compatible with thinking about nature and about thinking itself. Following conventional terminology, this remarkable feature of the laws may be called *anthropness*. The laws are even more special though: being sufficiently rich in complicated solutions for the anthropness, they are, at the same time, sufficiently simple and elegant to be discoverable by these very anthropoi. They are also universal, very precise and in a sense complete. A universe with such laws, both complicated and simple, may be called Pythagorean, in honor of the great ancient thinker who first somehow foresaw this. Why are the laws both anthropic and discoverable, making our universe Pythagorean? What answers have been suggested so far? Is there at least one that is reasonable?

Speaker: Alexey Burov was born and raised in Novosibirsk, USSR. He defended his PhD in theoretical and mathematical physics at Budker Institute of Nuclear Physics, Novosibirsk, and his main expertise relates to charged particle beams. Since 1997 he has been working at Fermi National Accelerator Laboratory (Fermilab). He worked at CERN during its Run I, when the Higgs boson was discovered. Alexey is an author of many journal publications on beam optics, cooling, diffusion and instabilities; he is a Fellow of American Physical Society. Apart from physics, he also authored numerous philosophical essays, in Russian and in English, many of them together with his son Lev. Their treatise "Genesis of a Pythagorean Universe" received an award from the Foundational Questions Institute, FQXi.org. Since 2013, Alexey authors a philosophical blog (in Russian, at snob.ru), and chairs the philosophy society at Fermilab (in English), which he founded. Many of his philosophical compositions are published in major Russian literary magazines.

Zoom link to event Meeting ID: 347 324 199; Password: 009325

Note: Online colloquium

Monday April 27, 2020 Starts at 12:15 PM Coffee at 12:00 PM Online at zoom.us