Varying Constants and Fundamental Cosmology -VARCOSMOFUN'16



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Do we live in the Best of all Worlds? - The fine tuning of the constants of Nature

Saturday 17 September 2016 12:00 (30 minutes)

On the occasion of the 300. anniversary of the death of G.W. Leibniz

Einstein once said: "What really interests me is whether God could have created the world any differently." Our existence depends on a variety of constants which appear to be extremely fine tuned to allow for the existence of Life. These include the number of spatial dimensions, the strengths of the forces, the masses of the particles, the composition of the Universe and others.

On the occasion of Leibniz' anniversary we discuss the question of whether we live in the "Best of all Worlds". The hypothesis of a multiverse could explain the mysterious fine tuning of so many fundamental quantities. Anthropic arguments are critically reviewed.

Summary

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