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Mario Livio*, Space Telescope Science Institute, Baltimore, MD. *Is God a mathematician?*

For centuries, mathematical theories have proven uncannily accurate at describing—and predicting—the physical world. What is it that gives mathematics such powers? I will thoroughly review this question in “Is God A Mathematician?” (a talk based on my popular book). The talk will span such fields as mathematics, cosmology, physics, and the cognitive sciences, and will attempt to offer an accessible and lively account of the ideas of some of the greatest mathematicians and scientists in history, from Archimedes to Galileo and Descartes, and from Newton to Hilbert and Gödel, on up to the present day. Along the way I will discuss another question with which mathematicians, philosophers, and neuroscientists have struggled for centuries: Is mathematics ultimately invented or discovered? (Received July 03, 2012)