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Štiberová, Dušana; Tkačik, Štefan

Galileo's thoughts on infinity. (Galileov pohl'ad na nekonečno.)

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Summary: The theory of sets, founded by George Cantor (1845–1918), systematically deals with the notion of infinity. Observe that mathematical studies of infinity and related paradoxes by Bernard Bolzano (1781–1848) are of an earlier vintage. But the trailblazer in this area is Galileo Galilei (1564–1642), the founder of modern natural science. The goal of our article is to brush up Galileo's revolutionary and modern ideas on infinity. In his treatise *Discorsi e dimostrazioni matematiche intorno a due nuove scienze*, published in 1638, Galileo discussed ways how to compare the size of infinite sets, the bijection between points of intervals with different lengths, and the equality of areas of an interval and a single point. He studied other paradoxes of infinity pointing against the Aristotle's maxim the whole is greater than the part. Galileo's ideas can serve as an interesting complement to high school mathematics.

Classification: A30 E60

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