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The application of the theory of probability and mathematical statistics in physics.

Billich, Martin (ed.) et al., Teaching mathematics. Innovation, new trends, research. Proceedings from the 15th Slovak-Czech-Polish mathematical school, Spišské, Podhradie, Slovakia, June 4–8, 2008. Ružomberok: Catholic University, Pedagogical Faculty (ISBN 978-80-8084-418-9/pbk). Scientific Issues, 105-112 (2009).

Summary: In physics and in natural sciences the term statistics is understood as an analysis of multiple phenomena which makes use of the theory of probability. It is used wherever the formation of objective conclusions based on experimental data is concerned. Mathematical statistics and probability have their noticeable use. The part of physics that uses mathematical statistics and probability for evaluation of physical experiments is called the experimental physics. A field of theoretical physics which cannot do without mathematical statistics and probability is statistical physics and quantum mechanics. It is a part of physics that studies the phenomena of macroscopic solids as complexes of a large number of particles.

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Classification: M50 K90

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