

# Generalized functions in nonstandard analysis

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## ABSTRACT

The methods of nonstandard analysis are nowadays used in many different branches of mathematics and applications (e.g., logic, combinatorial number theory, probability, economics, analysis, geometry, stochastic analysis, ...). In this talk we will introduce the basic ideas of the nonstandard methods, we will provide some examples of applications to a few fields and we will introduce some research aspects related to generalized functions and applications to physics. The talk will be mostly informal: we will try to give ideas and provide motivations for the nonstandard approaches without concentrating on too many details.