Large deviations, between theory and applications

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The theory of large deviations is one of the more remarkable developments of the last thirty years in probability theory. Besides the theoretical motivations that have been at its origin, this theory has proved to be useful in many applied domains: risk theory, telecommunications, simulation,... Actually in all domains that have at the heart the computation of the probability of rare events.

This talk gives an introduction to these aspects of the theory of large deviations and to some recent developments. And to its limitations as well.