

## <<经典位势论及其对应的概率论>>

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### 内容概要

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### 章节摘录

版权页： Filtered measurable spaces and their adapted families of functions provide a mathematical formalism modeling certain physical ideas. A measurable space is a mathematical model of the set of possible events in some physical context, together with a distinguished class of compound events. If  $I$  is a subset of  $\mathbb{R}$ , a filtration of  $\mathcal{F}$  is a mathematical model for the flow of events in time. Each pair  $(\Omega, \mathcal{F})$  represents a possible outcome of an experiment at time  $t$ , and  $\mathcal{F}_t$  represents the class of compound events observable before or at time  $t$ . The value  $x$  of a function  $x(t, \cdot)$  at  $(t, \omega)$  models the value of some observable at the outcome  $(t, \omega)$ , and the function  $x(t, \cdot)$  itself is therefore incorporated in  $\mathcal{F}_t$  in sense that this function is supposed  $\mathcal{F}_t$  measurable; that is,  $\{x(\cdot, \cdot), \mathcal{F}_t\}$  is an adapted process. The Measurable Sets of a Topological Measurable Space If a measurable space is given as a topological space, the algebra of measurable sets will always be the algebra of Borel subsets of the space unless some other algebra is specified. In particular, the state space  $R$  means the measurable space.

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