

《复杂系统的热力学》

图书基本信息

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内容概要

Almost everything that happens around us are complex, non-linear, dissipative events. Fire, wind, the clouds, a jet of water, the crashing of a vase, an athletic performance; and within us, our memory. Non-dissipative, Hamiltonian events too are complex and non-linear. If there is one thing that is very difficult to understand, and little investigated, it is why Nature has simple laws that can be confirmed in simple cases and which can nearly always be dealt with linear differential equations. Nature organizes the masses of astronomical bodies in a prevalently spherical symmetry which allows a very simple calculation of the field of gravity, some-thing which is generally incalculable. The gravitational interactions, which are non-linear and intractable in cases of three bodies or more, are organised so that the multi-body problems are dominated by a prevailing mass that allows the perturbative method to be applied.

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