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<<一致双曲性之外的动力学>>

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内容概要

广义而言，动力学的目的是描述由“极少的”演化规律所决定的系统(如微分方程或映射)的长期动态。

20世纪60年代早期，Steve Smale引入一臻双曲性概念，统一了动力系统理论的重要结果，导致了关于一大类系统的一个非常成功的理论：一致双曲系统理论。

一致双曲系统的动态非常复杂，然而，无论是从几何角度还是统计层面，它们都已得到很好的理解。

在过去的20年中，动力系统理论发生了另一个巨大变化：研究人员试图建立一个统一理论，适合“大多数”动力系统；在该理论下，一致双曲情形的尽可能多的结论依然成立。

本书尝试由最新进展出发，统一地展望动力系统理论，提出一些公共开问题，指出未来的可能发展方向。

本书面向希望快速而广泛地了解动力学这一方面发展的初学者及研究人员，深度不等地讨论了主要的思想、方法以及结果，给出了相关参考文献，读者可以从文献中获知详细细节和补充信息。

本书共12章，各章保持相当的独立性，以方便读者阅读特定主题。

书后五个附录涵盖了一些重要的补充材料。

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