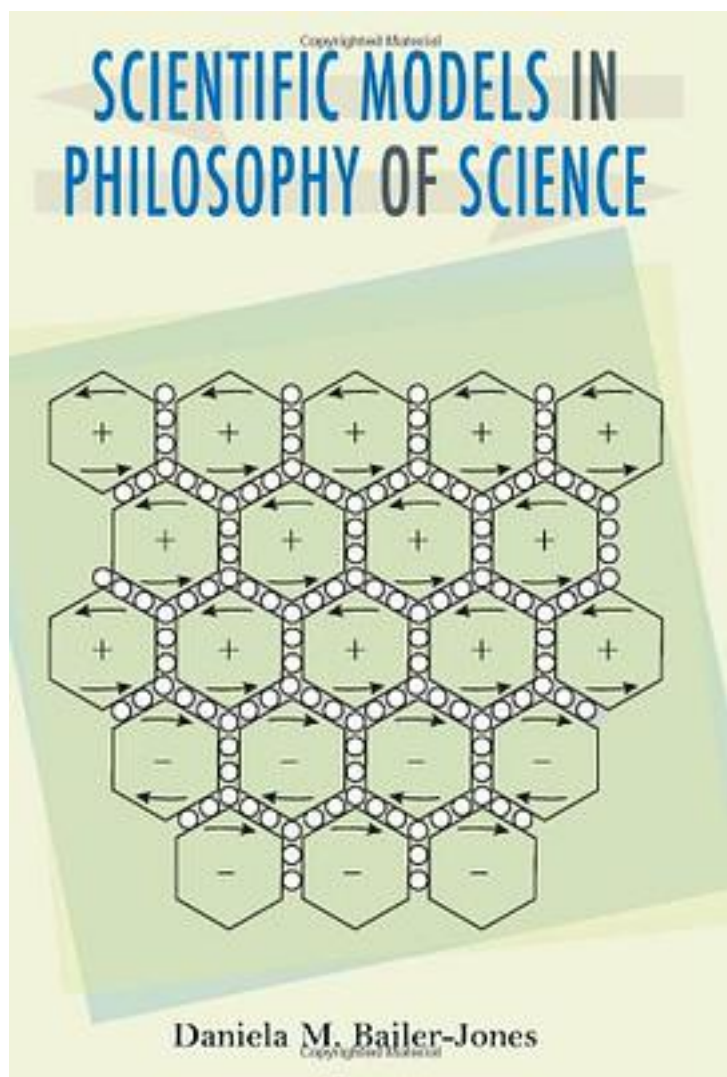


Scientific Models in Philosophy of Science



[Scientific Models in Philosophy of Science_下载链接1](#)

著者:Daniela M. Bailer-Jones

出版者:University of Pittsburgh Press

出版时间:2009-9-28

装帧:Hardcover

isbn:9780822943761

Scientists have used models for hundreds of years as a means of describing phenomena and as a basis for further analogy. In "Scientific Models in Philosophy of Science," Daniela Bailer-Jones assembles an original and comprehensive philosophical analysis of how models have been used and interpreted in both historical and contemporary contexts. Bailer-Jones delineates the many forms models can take (ranging from equations to animals; from physical objects to theoretical constructs), and how they are put to use. She examines early mechanical models employed by nineteenth-century physicists such as Kelvin and Maxwell, describes their roots in the mathematical principles of Newton and others, and compares them to contemporary mechanistic approaches. Bailer-Jones then views the use of analogy in the late nineteenth century as a means of understanding models and to link different branches of science. She reveals how analogies can also be models themselves, or can help to create them. The first half of the twentieth century saw little mention of models in the literature of logical empiricism. Focusing primarily on theory, logical empiricists believed that models were of temporary importance, flawed, and awaiting correction. The later contesting of logical empiricism, particularly the hypothetico-deductive account of theories, by philosophers such as Mary Hesse, sparked a renewed interest in the importance of models during the 1950s that continues to this day. Bailer-Jones analyzes subsequent propositions of: models as metaphors; Kuhn's concept of a paradigm; the Semantic View of theories; and the case study approaches of Cartwright and Morrison, among others. She then engages current debates on topics such as phenomena versus data, the distinctions between models and theories, the concepts of representation and realism, and the discerning of falsities in models.

作者介绍:

目录:

[Scientific Models in Philosophy of Science_下载链接1](#)

标签

科学哲学

科学

模型

哲学

评论

本书作者已于2006年11月13日因癌症离世， 年仅37岁， 她已与病魔抗争了十年。

[Scientific Models in Philosophy of Science_ 下载链接1](#)

书评

[Scientific Models in Philosophy of Science_ 下载链接1](#)