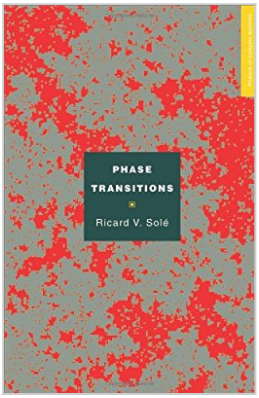


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Introductory chapters provide the critical concepts and the simplest mathematical techniques required to study phase transitions. In a series of example-driven chapters, Ricard Solé shows how such concepts and techniques can be applied to the analysis and prediction of complex system behavior, including the origins of life, viral replication, epidemics, language evolution, and the emergence and breakdown of societies.

Written at an undergraduate mathematical level, this book provides the essential theoretical tools and foundations required to develop basic models to explain collective phase transitions for a wide variety of ecosystems.

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Review
"Solé has compiled an interesting overview of the vast amount of real world systems in which phases play a role. It is a good introduction to the topic and the great variety of applications is inspirational. *Phase Transitions* is a good read for the JASSS audience interested in if, how, and when abrupt changes may occur--either as risks for collapse or as opportunities for salvation."**--Emile Chappin, *Journal of Artificial Societies and Social Simulation***

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About the Author
Ricard V. Sole is research professor and head of the Complex Systems Lab at Pompeu Fabra University and external professor at the Santa Fe Institute. He is the coauthor of "Signs of Life" (Basic) and "Self-Organization in Complex Ecosystems" (Princeton).

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