

Springer

1st
edition

1st ed. 2020, XI, 233 p. 136
illus., 131 illus. in color.

Printed book

Hardcover

Printed book

Hardcover

ISBN 978-3-030-21713-6

£ 109,99 | CHF 153,50 | 129,99 € |
142,99 € (A) | 139,09 € (D)

Available

Discount group

Science (SC)

Product category

Monograph

Series

Understanding Complex Systems

Other renditions

Softcover

ISBN 978-3-030-21716-7

Softcover

ISBN 978-3-030-21715-0

Physics : Complex Systems

Zakharova, Anna

Chimera Patterns in Networks

Interplay between Dynamics, Structure, Noise, and Delay

- Provides a timely overview and presents state-of-the-art research on chimera patterns
- Examines the complex interplay between stochasticity, time delay and network topology
- Discusses methods for controlling spatio-temporal patterns by means of the interplay of network structure, time delay and noise

This is the first book devoted to chimera states - peculiar partial synchronization patterns in networks. Providing an overview of the state of the art in research on this topic, it explores how these hybrid states, which are composed of spatially separated domains of synchronized and desynchronized behavior, arise surprisingly in networks of identical units and symmetric coupling topologies. The book not only describes various types of chimeras, but also discusses the role of time delay, stochasticity, and network topology for these synchronization-desynchronization patterns. Moreover, it addresses the question of robustness and control of chimera states, which have various applications in physics, biology, chemistry, and engineering. This book is intended for researchers with a background in physics, applied mathematics, or engineering. Of great interest to specialists working on related problems, it is also a valuable resource for newcomers to the field and other scientists working on the control of spatio-temporal patterns.

Order online at [springer.com/booksellers](https://www.springer.com/booksellers)

Springer Nature Customer Service Center GmbH

Customer Service

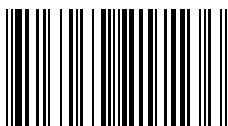
Tiergartenstrasse 15-17

69121 Heidelberg

Germany

T: +49 (0)6221 345-4301

row-booksellers@springernature.com



ISBN 978-3-030-21713-6 / BIC: PHS / SPRINGER NATURE: SCP33000

Prices and other details are subject to change without notice. All errors and omissions excepted. Americas: Tax will be added where applicable. Canadian residents please add PST, QST or GST. Please add \$5.00 for shipping one book and \$ 1.00 for each additional book. Outside the US and Canada add \$ 10.00 for first book, \$5.00 for each additional book. If an order cannot be fulfilled within 90 days, payment will be refunded upon request. Prices are payable in US currency or its equivalent.

Part of **SPRINGER NATURE**