

Cambridge Elements

Elements in the Philosophy of Physics

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LAWS OF PHYSICS

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Cambridge University Press & Assessment
978-1-009-47935-6 — Laws of Physics
Eddy Keming Chen
Frontmatter
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CAMBRIDGE
UNIVERSITY PRESS

Shaftesbury Road, Cambridge CB2 8EA, United Kingdom

One Liberty Plaza, 20th Floor, New York, NY 10006, USA

477 Williamstown Road, Port Melbourne, VIC 3207, Australia

314–321, 3rd Floor, Plot 3, Splendor Forum, Jasola District Centre,
New Delhi – 110025, India

103 Penang Road, #05–06/07, Visioncrest Commercial, Singapore 238467

Cambridge University Press is part of Cambridge University Press & Assessment,
a department of the University of Cambridge.

We share the University's mission to contribute to society through the pursuit of
education, learning and research at the highest international levels of excellence.

www.cambridge.org

Information on this title: www.cambridge.org/9781009479356

DOI: 10.1017/9781009026390

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When citing this work, please include a reference to the DOI 10.1017/9781009026390

First published 2024

A catalogue record for this publication is available from the British Library.

ISBN 978-1-009-47935-6 Hardback

ISBN 978-1-009-01272-0 Paperback

ISSN 2632-413X (online)

ISSN 2632-4121 (print)

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Laws of Physics

Elements in the Philosophy of Physics

DOI: 10.1017/9781009026390
First published online: June 2024

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Abstract: Despite its apparent complexity, our world seems to be governed by simple laws of physics. This Element provides a philosophical introduction to such laws. It explains how they are connected to some of the central issues in philosophy, such as ontology, possibility, explanation, induction, counterfactuals, time, determinism, and fundamentality. The Element suggests that laws are fundamental facts that govern the world by constraining its physical possibilities. I examine three hallmarks of laws – simplicity, exactness, and objectivity – and discuss whether and how they may be associated with laws of physics.

This element also has a video abstract: www.cambridge.org/Chen

Keywords: time, constraint, simplicity, explanation, modality

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ISBNs: 9781009479356 (HB), 9781009012720 (PB), 9781009026390 (OC)
ISSNs: 2632-413X (online), 2632-4121 (print)

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