

PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY A

Continuing its long history of influential scientific publishing, *Phil. Trans. R. Soc. A* publishes high quality theme issues on topics of current importance and general interest within the physical, mathematical and engineering sciences, guest-edited by leading authorities and comprising new research, reviews and opinions from prominent researchers. Each issue aims to create an original and authoritative synthesis, often bridging traditional disciplines, which showcases current developments and provides a foundation for future research, applications and policy decisions.

royalsocietypublishing.org/journal/rsta

EDITOR

John Dainton

COMMISSIONING EDITOR

Alice Power

PRODUCTION COORDINATOR

Teagan Meadows

EDITORIAL BOARD

Luis Fernando Alday

G Ambika

Marina Antoniou

Sharon Ashbrook

Jas Pal Badyal

Steven Balbus

Aparna Baskaran

Susan Bourne

Peter Burgess

Richard Catlow

Ana Cavalcanti

Marielle Chartier

José António Correia

Artur Ekert

Christian Enss

Valentina Erastova

Melissa Franklin

C. David Garner

Ambarish Ghosh

Alain Goriely

Ruth Gregory

Richard Haley

Kate Hendry

Sophie Hermans

Jan Hesthaven

Yue Hou

Daniel Ibarra

Ralf Jaumann

Lewys Jones

Janine Kavanagh

Jacob Klein

Cristina Lazzeroni

Anders Lindquist

Richard Lueptow

Zhihan Lyu

Roberto Maiolino

Lance Manuel

Paolo Maria Mariano

Amanda Maycock

Rachel Mills

Philip Moriarty

Vitaly Moroz

Alexander Morozov

Petr Nikrityuk

Raymond Ooi

Norman Paton

Cécile Penland

David Pontin

Alessandro Provetti

Paul Raithby

Tommaso Ruggeri

Alberto Salvadori

Shankar Sastry

Lindsay Stringer

J. Michael T. Thompson

Sarah Thompson

Susan van den Heever

Nathalie Vriend

David Wands

Julia Weinstein

Standa Živný

SUBSCRIPTIONS

In 2023 *Phil. Trans. R. Soc. A* will be published 26 times a year. For more details of subscriptions and single issue sales please contact our customer service team at:

E: sales@royalsociety.org

PRICES FOR 2023

	Online only	Online and print
£ UK/Rest of World	£2,702	£3,782
€ Europe	€3,516	€4,922
\$ US/Canada	\$5,127	\$7,178

SUBMISSIONS

For submission guidelines and access to journal content visit:

royalsocietypublishing.org/journal/rsta

Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences

ISSN 1364-503X

© The Royal Society, 2023

Except as otherwise permitted under the Copyright, Designs and Patents Act, 1988, this publication may only be reproduced, stored or transmitted, in any form or by any other means, with the prior permission in writing of the publisher, or in the case of reprographic reproduction, in accordance with the terms of a licence issued by the Copyright Licensing Agency. In particular, the Society permits the making of a single photocopy of an article from this issue (under Sections 29 and 38 of this Act) for an individual for the purposes of research or private study. Open access articles, which are published under a CC-BY licence, may be re-used without permission, but subject to acknowledgement.