

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.

rsta.royalsocietypublishing.org

EDITOR

John Dainton

COMMISSIONING EDITOR

Bailey Fallon

PRODUCTION EDITOR

Amie Mustill

EDITORIAL BOARD

Kazuyuki Aihara
Sharon Ashbrook
Chunli Bai
Steven Balbus
John Ball
Katharine Cashman
Jack Connor
Andrew Cooper
Athena Coustensis
Ineke De Moortel
Caterina Ducati
Christian Enss
Baylor Fox-Kemper
Melissa Franklin
Pratibha Gai
Marie-Pierre Gaigeot
C. David Garner
Robin Garrell
Isabelle Gallagher
Nigel Glover
Joanna Haigh
Yasuhiro Iwasawa

Nick Jenkins
Brian Kennett
Stephen Liddle
Simon Lilly
Rebecca Lingwood
Mike Lovell
Paolo Maria Mariano
David May
Paul Milewski
Anne Neville
Tim Palmer
Cécile Penland
Vincent Poor
Paul Raithby
Stuart Robinson
Misao Sasaki
Gordon Semenov
Simone Severini
John Shepherd
Ajay Sood
Ingrid Stairs
Douglas Stephan
Iain Stewart
Colin Wilson
Xuesong Wu
Maohai Xie
Hiroshi Yamaguchi
Julia Yeomans
Qiang Zhang

SUBSCRIPTIONS

In 2018 *Phil. Trans. R. Soc. A* (ISSN 1364-503X) will be published 26 times a year. For more details of subscriptions and single issue sales please contact our fulfilment agent:

Turpin Distribution
The Royal Society Customer Services
Pegasus Drive
Stratton Business Park
Biggleswade
SG18 8TQ

T +44 17 6760 4951

F +44 17 6760 1640

E royalsociety@turpin-distribution.com

Alternatively, please contact our customer service team at :

E sales@royalsociety.org

PRICES FOR 2018

	Online only	Online and print
£ UK/Rest of World	£2518	£3525
€ Europe	€3276	€4586
\$ US/Canada	\$4776	\$6686

SUBMISSIONS

For submission guidelines and access to journal content visit:

rsta.royalsocietypublishing.org

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

ISSN 1364-503X

© The Royal Society, 2018

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.