I. Publication Title	2. Publication Number	3. Filing Date	
Mathematical Proceed of the Cambr Philosoph Soc	445 - 620	10/01/2021	
L Issue Frequency	5. Number of Issues Published Annually	6. Annual Subscription Price	
Bimonthly Jan, Mar, May, Jul, Sep. Nov	6	\$1,214,00	
Complete Mailing Address of Known Office of Publication (No.)	f printer) (Street, city, county, state, and ZIP+4 ⁽¹⁾)	Contact Person	
Cambridge University Press	,	Nina lammatteo	
Liberty Plaza New York, NY 10006		Telephone (include area cod 2123375004	
Complete Mailing Address of Headquarters or General Busin	ess Office of Publisher (Not printer)	2123313001	
Cambridge University Press Edinburgh Building, Cambridge CB2 2RU, England			
Full Names and Complete Mailing Addresses of Publisher, E	Stor, and Managing Editor (Do not leave blank)		
Publisher (Name and complete mailing address)			
Cambridge University Press 1 Liberty Plaza			
New York, NY 10006			
Editor (Name and complete mailing address)			
B. J. Green, University of Cambridge, UK			
Managing Editor (Name and complete mailing address)			
Cambridge University Press, 1 Liberty Plaza, New Yo			
D. Owner (Do not leave blank. If the publication is owned by a names and addresses of all stockholders owning or holding names and addresses of the individual owners. If owned by each individual owner. If the publication is published by a re	corporation, give the name and address of the corporation t percent or more of the total amount of stock. If not owne a partnership or other unincorporated firm, give its name a	ed by a corporation, give the	
 Owner (Do not leave blank. If the publication is owned by a names and addresses of all stockholders owning or holding names and addresses of the individual owners. If owned by 	corporation, give the name and address of the corporation t percent or more of the total amount of atock. If not owne a partnership or other unincorporated firm, give its name a reprofit organization, give its name and address.)	ed by a corporation, give the	
10. Owner (Do not leave blank. If the publication is owned by a names and addresses of all stockholders owning or holding names and addresses of the individual owners. If owned by each individual owner. If the publication is published by a no full Name.	corporation, give the name and address of the corporation if percent or more of the total amount of stock. If not owns partnership or other unincorporated firm, give its name approfit organization, give its name and address.] Complete Mailling Address	ed by a corporation, give the	
10. Owner (Do not leave blank. If the publication is owned by a names and addresses of all stockholders owning or holding names and addresses of the individual owners. If owned by each individual owner. If the publication is published by a no full Name.	coporation, give the name and address of the corporation f percent or more of the total amount of about. If not owns a patternity or other university operation firm, give its name at approfit organization, give its name and address.] Complete Mailing Address The Central Science Library	ed by a corporation, give the	
10. Owner (Do not leave blank. If the publication is owned by a names and addresses of all stockholders owning or holding names and addresses of the individual owners. If owned by each individual owner. If the publication is published by a no full Name.	cogonation, give the name and address of the cogonation of poceed or more of the lotal amount of about. If not own patientship or other unicopoporate from, you dis name appetituding organization, give this name and address.) Conjectes Mailing Address The Central Science Library Arts School	ed by a corporation, give the	
10. Owner (Do not leave blank. If the publication is owned by a names and addresses of all stockholders owning or holding names and addresses of the individual owners. If owned by each individual owner. If the publication is published by a no full Name.	cogonation, give the name and address of the cogonation of poceed or more of the lotal amount of about. If not earn partenethy or other unicopoporate first, you this name is specified project policy to the same and address.) Conjectes Mailing Address The Central Science Library Arts School Bene't Street	ed by a corporation, give the	
Owen (Du not leave Bown, If the publishers an owned by a name and ordinates of all absorbings owning or holding association arming or holding association for the publishers of the publish	coporation, give the name and address of the coporation (prevent or now of the tibil amount of table. If not care in prevent or now of the tibil amount of table. If not care in properties of the care and address in properties operation, only in a trans and address. The Central Science Library Arts School Bene's Street Cambridge CR2 3PY UK ss Coving or holding in Percent or More of Total Annount	of by a corporation, give the and address as well as those of	
10. Owner (Do not leave blank. If the publication is owned by a names and addresses of all stockholders owning or holding names and addresses of the individual owners. If owned by each individual owner. If the publication is published by a no full Name.	coporation, give the name and address of the coporation give the name and address of the coporation and the property of the university of the process of the give to name and address of Coveylan Making Address The Central Science Library Arts School Bench Street Cambridge (B2 3PY UK IX Common or Holding in Proceet or Note of Total Anoust — X Nome or Holding in Proceet or Note of Total Anoust — X Nome	of by a corporation, give the and address as well as those of	
Owner (Ou not leave town, if the published a owned by a name and advises of the individual owner. If second by a name and advises of the individual owner. If second by a not individual owner is published by a not all these. Lambridge Philosophical Society 1. Known Bundholders, Murtgages, and Other Security Hold Other Security. 1. Known Bundholders, Murtgages, and Other Security Hold Other Securities. If none, think like.	coporation, give the name and address of the coporation (prevent or now of the tibil amount of table. If not care in prevent or now of the tibil amount of table. If not care in properties of the care and address in properties operation, only in a trans and address. The Central Science Library Arts School Bene's Street Cambridge CR2 3PY UK ss Coving or holding in Percent or More of Total Annount	of by a corporation, give the and address as well as those of	
Owner (Ou not leave town, if the published a owned by a name and advises of the individual owner. If second by a name and advises of the individual owner. If second by a not individual owner is published by a not all these. Lambridge Philosophical Society 1. Known Bundholders, Murtgages, and Other Security Hold Other Security. 1. Known Bundholders, Murtgages, and Other Security Hold Other Securities. If none, think like.	coporation, give the name and address of the coporation give the name and address of the coporation and the property of the university of the process of the give to name and address of Coveylan Making Address The Central Science Library Arts School Bench Street Cambridge (B2 3PY UK IX Common or Holding in Proceet or Note of Total Anoust — X Nome or Holding in Proceet or Note of Total Anoust — X Nome	of by a corporation, give the and address as well as those of	
Owner (Ou not leave town, if the published a owned by a name and advises of the individual owner. If second by a name and advises of the individual owner. If second by a not individual owner is published by a not all these. Lambridge Philosophical Society 1. Known Bundholders, Murtgages, and Other Security Hold Other Security. 1. Known Bundholders, Murtgages, and Other Security Hold Other Securities. If none, think like.	coporation, give the name and address of the coporation give the name and address of the coporation and the property of the university of the process of the give to name and address of Coveylan Making Address The Central Science Library Arts School Bench Street Cambridge (B2 3PY UK IX Common or Holding in Proceet or Note of Total Anoust — X Nome or Holding in Proceet or Note of Total Anoust — X Nome	of by a corporation, give the and address as well as those of	
Owner (Ou not leave town, if the published a owned by a name and advises of the individual owner. If second by a name and advises of the individual owner. If second by a not individual owner is published by a not all these. Lambridge Philosophical Society 1. Known Bundholders, Murtgages, and Other Security Hold Other Security. 1. Known Bundholders, Murtgages, and Other Security Hold Other Securities. If none, think like.	coporation, give the name and address of the coporation give the name and address of the coporation and the property of the university of the process of the give to name and address of Coveylan Making Address The Central Science Library Arts School Bench Street Cambridge (B2 3PY UK IX Common or Holding in Proceet or Note of Total Anoust — X Nome or Holding in Proceet or Note of Total Anoust — X Nome	of by a corporation, give the and address as well as those of	
Owner (Ou not leave town, if the published a owned by a name and advises of the individual owner. If second by a name and advises of the individual owner. If second by a not individual owner is published by a not all these. Lambridge Philosophical Society 1. Known Bundholders, Murtgages, and Other Security Hold Other Security. 1. Known Bundholders, Murtgages, and Other Security Hold Other Securities. If none, think like.	coporation, give the name and address of the coporation give the name and address of the coporation and the property of the university of the process of the give to name and address of Coveylan Making Address The Central Science Library Arts School Bench Street Cambridge (B2 3PY UK IX Common or Holding in Proceet or Note of Total Anoust — X Nome or Holding in Proceet or Note of Total Anoust — X Nome	of by a corporation, give the and address as well as those o	
Owner (Ou not leave town, if the published a owned by a name and advises of the individual owner. If second by a name and advises of the individual owner. If second by a not individual owner is published by a not all these. Lambridge Philosophical Society 1. Known Bundholders, Murtgages, and Other Security Hold Other Security. 1. Known Bundholders, Murtgages, and Other Security Hold Other Securities. If none, think like.	coporation, give the name and address of the coporation give the name and address of the coporation and the property of the university of the process of the give to name and address of Coveylan Making Address The Central Science Library Arts School Bench Street Cambridge (B2 3PY UK IX Common or Holding in Proceet or Note of Total Anoust — X Nome or Holding in Proceet or Note of Total Anoust — X Nome	of by a corporation, give the and address as well as those o	
Owner (Ou not leave town, if the published a owned by a name and advises of the individual owner. If second by a name and advises of the individual owner. If second by a not individual owner is published by a not all these. Lambridge Philosophical Society 1. Known Bundholders, Murtgages, and Other Security Hold Other Security. 1. Known Bundholders, Murtgages, and Other Security Hold Other Securities. If none, think like.	coporation, give the name and address of the coporation give the name and address of the coporation and the property of the university of the process of the give to name and address of Coveylan Making Address The Central Science Library Arts School Bench Street Cambridge (B2 3PY UK IX Common or Holding in Proceet or Note of Total Anoust — X Nome or Holding in Proceet or Note of Total Anoust — X Nome	of by a corporation, give the and address as well as those o	

			14. Issue Date for Circu	lation Data Below
Mathematical Proceed of the Cambr Philosoph Soc Extent and Nature of Circulation		09.2021		
		Average No. Copies Each Issue During Preceding 12 Months	No. Copies of Single Issue Published Nearest to Filing Dat	
a. Total Numb	er of	Copies (Net press run)	210	210
b. Paid Circulation (By Mail and Outside the Mail)	(1)	Mailed Outside-County Paid Subscriptions Stated on PS Form 3541 (Include paid distribution above nominal rate, advertiser's proof copies, and exchange copies)	31	10
	(2)	Mailed In-County Paid Subscriptions Stated on PS Form 3541 (Include paid distribution above nominal rate, advertiser's proof copies, and exchange copies)	0	0
	(3)	Paid Distribution Outside the Mails Including Sales Through Dealers and Carriers, Street Vendors, Counter Sales, and Other Paid Distribution Outside USPS®	0	0
	(4)	Paid Distribution by Other Classes of Mail Through the USPS (e.g., First-Class Mail*)	101	80
. Total Paid 0	Natri	oution [Sum of 15b (1), (2), (3), and (4)]	132	90
Nominal	(1)	Free or Nominal Rate Outside-County Copies included on PS Form 3541	40	8
(By Mail	(2)	Free or Nominal Rate In-County Copies Included on PS Form 3541	0	0
Distribution	(3)	Fore as Naminal Buts Coning Halland at Other Conney Transaction at 19800	0	0
Distribution (By Mail and Outside	(3)	Free or Nominal Rate Copies Mailed at Other Classes Through the USPS	-	-
Distribution (By Mail and Outside the Mail)	(3)	Free or Nominal Rate Copies Mailed at Other Classes Through the USPS (e.g., First-Class Mail)	0	0
Distribution (By Mail' and' Outside the Mail)	(3) (4)	Free or Nominal Rate Copies Mailed at Other Classes Through the USPS (e.g., First-Class Mail) Free or Nominal Rate Clastribution Outside the Mail (Carriers or other means)	0 3	0
Distribution (By Mail and Outside the Mail) e. Total Free of	(3) (4) r No	Free or Naminal Rule Copies Maint of Other Classes Through the USPS (e.g., Prist Class Mai) Free or Naminal Rule Datribution Outside the Mail (Carriers or other means) mind Rule Datribution (Jum of 156 (1), (2), (3) and (4))	0 3 43	0 68 76
Distribution (By Mail and Outside the Mail) e. Total Free of	(3) (4) r No ution	Free or Nominal Ratio Copies Maleria of Other Classes Through the USIFS (e.g., Free Classes Ma). Free or Nominal Ratio Exhibition Outside the Mail (Carrians or other means) inmost Ratio Distribution Class of 16d (10, 0), (2) and (40) (Som of 16a and 16a).	0 3 43	0 68 76 166

VINITED STATES

Statement of Ownership, Management, and Circulation
POSTAL SERVICE (All Periodicals Publications Except Requester Publications) Average No. Copies
Each Issue During
Preceding 12 Months
Nearest to Filing Date b. Total Paid Print Copies (Line 15c) + Paid Electronic Copies (Line 16a) c. Total Print Distribution (Line 15f) + Paid Electronic Copies (Line 16a) ١ d. Percent Paid (Both Print & Electronic Copies) (16b divided by 16c × 100) Þ 17. Publication of Statement of Ownership If the publication is a general publication, publication of this statement is required. Will be printed in the ______Novertiber ______issue of this publication. 18. Signature and Title of Editor, Publisher, Business Manager, or Owner 10/01/2021

PS Form **3526**, July 2014 (Page 2 of 4)

PS Form **3526**, July 2014 (Page 3 of 4)

PRIVACY NOTICE: See our privacy policy on were usps.com

INSTRUCTIONS TO AUTHORS

1. Preparation of Manuscripts

A paper should be submitted electronically to mpeditor@hermes.cam.ac.uk in pdf form only.Authors are encouraged to prepare their manuscripts in LaTeX 2e using the PSP class file. The class file, together with a guide, PSP2egui.tex, and sample pages, PSP2esam.tex, can be downloaded from ftp://ftp.cambridge.org/pub/texarchive/journals/latex/psp-cls in either packed or unpacked form. These files will be updated periodically: please ensure that you have the latest version

A cover page should give the title, the author's name and institution, with the address to which mail should be sent.

The title, while brief, must be informative (e.g. A new proof of the prime-number theorem, whereas, Some applications of a theorem of G. H. Hardy would be useless).

Authors are asked to provide an abstract as a basis for search on the Web. This may be an explicit abstract at the start of the paper. Otherwise the first paragraph or two should form a summary of the main theme of the paper, providing an abstract intelligible to mathematicians. Please note that the abstract should be able to be read independently of the main text. References should therefore not be included in the abstract.

Authors are encouraged to check that where references are given, they are used in the text. Experience has shown that unused references have a habit of surviving into the final version of the manuscript.

For a typescript to be accepted for publication, it must accord with the standard requirements of publishers, and be presented in a form in which the author's intentions regarding symbols etc. are clear to a printer (who is not a mathematician). Please also check the Cambridge University Press website for information about the style in which the paper should be submitted.

2. Notation

Notation should be chosen carefully so that mathematical operations are expressed with all possible neatness, to lighten the task of the compositor and to reduce the chance of error. For instance n sub k is common usage, but avoid if possible using c sub n sub k. Fractions are generally best expressed by a solidus. Complicated exponentials like:

$$\exp\{z^2\sin\theta/(1+y^2)\}$$

should be shown in this and no other way.

It helps if displayed equations or statements which will be quoted later are numbered in order on the right of their line. They can then be referred to by, for example 'from (7)'.

The author must enable the printer (if necessary by pencilled notes in the margin) to distinguish between similar symbols such as $o, O, o, O, 0; x, X, x; \phi, \Phi, \emptyset; 1, 1; e.k, \kappa.k$.

Footnotes should be avoided.

Please use typewriter font for all addresses and email addresses.

Omit * from the end of proofs.

In listing assertions, conclusions, etc. do not use a vertical column of dots and do not follow (a) or (i) by a capital letter (eg. (i) the absolute value . .)

In making references precise use [3, theorem 5.1]

3. Diagrams

Diagrams should be in black ink or from a high-quality laser printer and should not be larger than 30 cm by 45 cm. Lettering to be inserted by the printer should be shown clearly on copies of the figures rather than on the original drawings. Please note that a charge may be made if hand-drawn diagrams need to be re-drawn for publication.

A typed list of captions may be provided at the end of the manuscript in the following format:

Figure 1. A basis for . . .

Note that there is no point at the end of the heading. All headings should be centred.

4. Tables

Tables should be numbered (above the table) and set out on separate sheets. Indicate the position of each in the text as for figures:

Table 3 here

Heading for tables should be shown in the following way:

Table 1. A basis for . . .

Note that there is no point at the end of the heading. All headings should be centred over columns.

$5.\,References$

References should be collected at the end of the paper numbered in alphabetical order of the authors' names. Where references are given, they should be used in the text. Titles of journals should be abbreviated as in *Mathematical Reviews*. The following examples show the preferred style for references to a paper in a journal, a paper in a proceedings volume, a book and an unpublished dissertation:

[1] J. F. Adams. On the non-existence of elements of Hopf invariant one. Ann of Math. (2) 72 (1960), 20-104.

[2] M. P. Fouram and D. S. Scott. Sheaves and logic. In Applications of Sheaves Lecture Notes in Math. vol. 753 (Springer-Verlag, 1979), pp. 302-401.

[3] P. T. Johnstone. Stone Spaces. Cambridge Studies in Advanced Math. no. 3 (Cambridge University Press, 1982).

[4] F. W. Lawvere. Functional semantics of algebraic theories. PhD. thesis. Columbia University (1963).

6. Submission of papers accepted for publication

When a paper has been accepted for publication the relevant TeX files of the final version, accompanied by a pdf file, should be sent to the Editor by e-mail.

This journal issue has been printed on FSC-certified paper and cover board. FSC is an independent, non-governmental, not-for-profit organization established to promote the responsible management of the world's forests. Please see www.fsc.org for information.

MATHEMATICAL PROCEEDINGS

 $of \ the$ $Cambridge \ Philosophical \ Society$

VOLUME 172 PART 1, pages 1-248, January 2022

CONTENTS

Gaofei Zhang Topological characterisation of rational maps with Siegel disks . 1
Natalia Jurga A new proof of the dimension gap for the Gauss map
E. Macías-Virgós & D. Mosquera-Lois Homotopic distance between maps 73
D. Kotschick Holomorphic one-forms, fibrations over the circle, and
characteristic numbers of Kähler manifolds
Verónica Dimant, Daniel Galicer & Jorge Tomás Rodríguez The polarization
constant of finite dimensional complex spaces is one
Kentaro Ohno Minimising CM degree and slope stability of projective
varieties
Lukas Spiegelhofer A lower bound for Cusick's conjecture on the digits of
n+t
David Gay & Jeffrey Meier Doubly pointed trisection diagrams and
surgery on 2-knots
LAURENT DUFLOUX & VILLE SUOMALA Projections of Poisson cut-outs in the
Heisenberg group and the visual 3-sphere
KEVIN BEANLAND & RYAN M. CAUSEY A \(\xi\)-weak Grothendieck compactness
principle
BJØRN IAN DUNDAS, AYELET LINDENSTRAUSS & BIRGIT RICHTER Corrigendum:
towards an understanding of ramified extensions of structured ring
spectra

©The Cambridge Philosophical Society 2022

Cambridge Core

For further information about this journal please go to the journal website at: cambridge.org/psp



MIX
Paper from
responsible sources
FSC® C007785

CAMBRIDGEUNIVERSITY PRESS