Yanqiu Guo and Mohammad A. Rammaha, Systems of nonlinear wave equations with damping and supercritical boundary and interior sources 2265
Hannes Thiel and Wilhelm Winter, The generator problem for \( Z \)-stable \( C^* \)-algebras 2327
Dominique Lecomte and Miroslav Zeleny, Baire-class \( \xi \) colorings: The first three levels 2345
Gene Abrams, Jason P. Bell, and Kulumani M. Rangaswamy, On prime nonprimitive von Neumann regular algebras 2375
Uri Andrews and Alice Medvedev, Recursive spectra of strongly minimal theories satisfying the Zilber Trichotomy 2393
Rui Loja Fernandes and Ivan Struchiner, The classifying Lie algebroid of a geometric structure I: Classes of coframes 2419
Armand Brumer and Kenneth Kramer, Paramodular abelian varieties of odd conductor 2463
Hongjia Chen, Nicolas Guay, and Xiaoguang Ma, Twisted Yangians, twisted quantum loop algebras and affine Hecke algebras of type \( BC \) 2517
Sandro Coriasco and Michael Ruzhansky, Global \( L^p \) continuity of Fourier integral operators 2575
Piotr Niemiec, Isometry groups of proper metric spaces 2597
W. Patrick Hooper, An infinite surface with the lattice property I: Veech groups and coding geodesics 2625
B. Monson, Daniel Pellicer, and Gordon Williams, Mixing and monodromy of abstract polytopes 2651
Alexander Dranishnikov and Michael Levin, Dimension of the product and classical formulae of dimension theory 2683
Henri Anciaux, Spaces of geodesics of pseudo-Riemannian space forms and normal congruences of hypersurfaces 2699
Liang Zhang, Packing dimension of images of additive Lévy processes 2719
Hiraku Nozawa, Deformation of Sasakian metrics 2737
Xavier Guitart, Victor Rotger, and Yu Zhao, Almost totally complex points on elliptic curves 2773
Laura Ciobanu and Susan Hermiller, Conjugacy growth series and languages in groups 2803
Editorial Information

To be published in the Transactions, a paper must be correct, new, nontrivial, and significant. Further, it must be well written and of interest to a substantial number of mathematicians. Piecemeal results, such as an inconclusive step toward an unproved major theorem or a minor variation on a known result, are in general not acceptable for publication.

Papers submitted to the Transactions should be 15 or more published journal pages in length. Shorter papers may be submitted to the Proceedings of the American Mathematical Society. Published pages are the same size as those generated in the style files provided for \texttt{AMS-L\LaTeX} or \texttt{AMS-\TeX}.

Information on the backlog for this journal can be found on the AMS website starting from \url{http://www.ams.org/tran}.

In an effort to make articles available as quickly as possible, articles are posted to the AMS website individually after proof is returned from authors and before appearing in an issue.

A Consent to Publish is required before we can begin processing your paper. After a paper is accepted for publication, the Providence office will send a Consent to Publish to all authors of the paper. By submitting a paper to this journal, authors certify that the results have not been submitted to nor are they under consideration for publication by another journal, conference proceedings, or similar publication.

Information for Authors

Initial submission. The AMS uses Centralized Manuscript Processing for initial submissions. Authors should submit a PDF file using the Initial Manuscript Submission form found at \url{www.ams.org/submission/tran}, or send one copy of the manuscript to the following address: Centralized Manuscript Processing, TRANSACTIONS OF THE AMS, 201 Charles Street, Providence, RI 02904-2294 USA. If a paper copy is being forwarded to the AMS, indicate that it is for \textit{Transactions} and include the name of the corresponding author, contact information such as email address or mailing address, and the name of an appropriate Editor to review the paper (see the list of Editors below).

The first page of an article must consist of a descriptive title, followed by an abstract that summarizes the article in language suitable for workers in the general field (algebra, analysis, etc.). The descriptive title should be short, but informative; useless or vague phrases such as “some remarks about” or “concerning” should be avoided. The abstract should be at least one complete sentence, and at most 300 words. Included with the footnotes to the paper should be the 2010 Mathematics Subject Classification representing the primary and secondary subjects of the article. The classifications are accessible from \url{www.ams.org/msc/}. The Mathematics Subject Classification footnote may be followed by a list of key words and phrases describing the subject matter of the article and taken from it. Journal abbreviations used in bibliographies are listed in the latest Mathematical Reviews annual index. The series abbreviations are also accessible from \url{www.ams.org/msnhtml/serials.pdf}. To help in preparing and verifying references, the AMS offers MR Lookup, a Reference Tool for Linking, at \url{www.ams.org/mrlookup}/.

Electronically prepared manuscripts. The AMS encourages electronically prepared manuscripts, with a strong preference for \texttt{AMS-L\LaTeX}. To this end, the Society has prepared \texttt{AMS-L\LaTeX} author packages for each AMS publication. Author packages include instructions for preparing electronic manuscripts, samples,
and a style file that generates the particular design specifications of that publication series. Articles properly prepared using the $\text{AMS-\LaTeX}$ style file and the \texttt{\LaTeX} \texttt{\label} and \texttt{\LaTeX} \texttt{\ref} commands automatically enable extensive intra-document linking to the bibliography and other elements of the article for searching electronically on the Web. Because linking must often be added manually to electronically prepared manuscripts in other forms of \TeX, using $\text{AMS-\LaTeX}$ also reduces the amount of technical intervention once the files are received by the AMS. This results in fewer errors in processing and saves the author proofreading time. $\text{AMS-\LaTeX}$ papers also move more efficiently through the production stream, helping to minimize publishing costs.

$\text{AMS-\LaTeX}$ is the highly preferred format of \TeX, but author packages are also available in $\text{AMS-\LaTeX}$. Those authors who make use of these style files from the beginning of the writing process will further reduce their own efforts. Manuscripts prepared electronically in $\text{\LaTeX}$ or plain \TeX are normally not acceptable due to the high amount of technical time required to insure that the file will run properly through the AMS in-house production system. $\text{\LaTeX}$ users will find that $\text{AMS-\LaTeX}$ is the same as $\text{\LaTeX}$ with additional commands to simplify the typesetting of mathematics, and users of plain \TeX should have the foundation for learning $\text{AMS-\LaTeX}$.

Authors may retrieve an author package for Transactions of the AMS from \url{www.ams.org/tran/tranauthorpac.html} or via FTP to \url{ftp.ams.org} (login as \texttt{anonymous}, enter your complete email address as password, and type \texttt{cd pub/author-info}). The \textit{AMS Author Handbook} and the \textit{Instruction Manual} are available in PDF format from the author package link. The author package can also be obtained free of charge by sending email to \texttt{tech-support@ams.org}, or from the Publication Division, American Mathematical Society, 201 Charles Street, Providence, RI 02904-2294 USA. When requesting an author package, please specify $\text{AMS-\LaTeX}$ or $\text{AMS-\LaTeX}$ and the publication in which your paper will appear. Please be sure to include your complete email address.

\textbf{After acceptance.} The source files for the final version of the electronic manuscript should be sent to the Providence office immediately after the paper has been accepted for publication. The author should also submit a PDF of the final version of the paper to the Editor, who will forward a copy to the Providence office. Accepted electronically prepared manuscripts can be submitted via the web at \url{www.ams.org/submit-book-journal/}, sent via email to \texttt{pub-submit@ams.org}, or sent on CD to the Electronic Prepress Department, American Mathematical Society, 201 Charles Street, Providence, RI 02904-2294 USA. When sending a manuscript electronically via email or CD, please be sure to include a message indicating in which publication the paper has been accepted. No corrections will be accepted electronically. Authors must mark their changes on their proof copies and return them to the Providence office. Complete instructions on how to send files are included in the author package.

\textbf{Electronic graphics.} Comprehensive instructions on preparing graphics are available starting from \url{www.ams.org/authors/journals.html}. A few of the major requirements are given here.

Submit files for graphics as EPS (Encapsulated PostScript) files. This includes graphics originated via a graphics application as well as scanned photographs or other computer-generated images. If this is not possible, TIFF files are acceptable as long as they can be opened in Adobe Photoshop or Illustrator.

Authors using graphics packages for the creation of electronic art should also avoid the use of any lines thinner than 0.5 points in width. Many graphics packages
allow the user to specify a “hairline” for a very thin line. Hairlines often look acceptable when proofed on a typical laser printer. However, when produced on a high-resolution laser imagesetter, hairlines become nearly invisible and will be lost entirely in the final printing process.

Screens should be set to values between 15% and 85%. Screens which fall outside of this range are too light or too dark to print correctly. Variations of screens within a graphic should be no less than 10%.

**AMS policy on making changes to articles after posting.** Articles are posted to the AMS website individually after proof is returned from authors and before appearing in an issue. To preserve the integrity of electronically published articles, once an article is individually posted to the AMS website but not yet in an issue, changes cannot be made in place in the paper. However, an “Added after posting” section may be added to the paper right before the References when there is a critical error in the content of the paper. The “Added after posting” section gives the author an opportunity to correct this type of critical error before the article is put into an issue for printing and before it is then reposted with the issue. The “Added after posting” section remains a permanent part of the paper. The AMS does not keep author-related information, such as affiliation, current address, and email address, up to date after a paper is initially posted.

Once the article is assigned to an issue, even if the issue has not yet been posted to the AMS website, corrections may be made to the paper by submitting a traditional errata article. The errata article will appear in a future print issue and will link back and forth on the Web to the original article online.

**Secure manuscript tracking on the Web.** Authors can track their manuscripts through the AMS journal production process using the personal AMS ID and Article ID printed in the upper right-hand corner of the Consent to Publish form sent to each author who publishes in AMS journals. Access to the tracking system is available from [www.ams.org/mstrack/](http://www.ams.org/mstrack/). An explanation of each production step is provided on the web through links from the manuscript tracking screen. Questions can be sent to tran-query@ams.org.

**Inquiries.** Any inquiries concerning a paper that has been accepted for publication that cannot be answered via the manuscript tracking system mentioned above should be sent to tran-query@ams.org or directly to the Electronic Prepress Department, American Mathematical Society, 201 Charles Street, Providence, RI 02904-2294 USA.
Editors

The AMS uses Centralized Manuscript Processing for initial submissions to AMS journals. Authors should follow instructions on the Initial Submission page found at www.ams.org/tran/transubmit.html.

Algebra, ALEXANDER KLESHCHEV, Department of Mathematics, University of Oregon, Eugene, OR 97403-1222 USA; e-mail: klesh@uoregon.edu

Algebraic geometry, DAN ABRAMOVICI, Department of Mathematics, Brown University, Box 1917, Providence, RI 02912 USA; e-mail: dan@math.brown.edu

Algebraic topology, SOREN GALAUTIUS, Department of Mathematics, Stanford University, Stanford, CA 94305 USA; e-mail: trans@math.stanford.edu

Arithmetic geometry, TED C. CHINBURG, Department of Mathematics, University of Pennsylvania, Philadelphia, PA 19104-6395; e-mail: ted@math.upenn.edu

Automorphic forms, representation theory and combinatorics, DANIEL BUMP, Department of Mathematics, Building 380, Sloan Hall, Stanford University, Stanford, CA 94305 USA; e-mail: bump@math.stanford.edu

Combinatorics and discrete geometry, IGOR PAK, Department of Mathematics, University of California Los Angeles, Los Angeles, CA 90095 USA; e-mail: trans.ucla@gmail.com

Commutative and homological algebra, LUCHEZAR L. AVRAMOV, Department of Mathematics, University of Nebraska, Lincoln, NE 68588-0130 USA; e-mail: avramov@math.unl.edu

Differential geometry and global analysis, CHRIS WOODWARD, Department of Mathematics, Rutgers University, 110 Frelinghuysen Road, Piscataway, NJ 08854 USA; e-mail: ctwu@math.rutgers.edu

Dynamical systems and ergodic theory and complex analysis, YUNPING JIANG, Department of Mathematics, CUNY Queens College and Graduate Center, 65-30 Kissena Boulevard, Flushing, NY 11367 USA; e-mail: yunping.jiang@qc.cuny.edu

Ergodic theory and combinatorics, VITALY BERGELSON, Department of Mathematics, Ohio State University, 231 W. 18th Avenue, Columbus, OH 43210 USA; e-mail: vitaly@math.ohio-state.edu

Functional analysis and operator algebras, NATHANIAL BROWN, Department of Mathematics, Penn State University, 320 McAllister Building, University Park, PA 16802 USA; e-mail: nbrown@math.psu.edu

Geometric analysis, WILLIAM P. MINICOZZI II, Department of Mathematics, Johns Hopkins University, 3400 N. Charles Street, Baltimore, MD 21218 USA; e-mail: trans@math.jhu.edu

Geometric topology, MARK FEIGHN, Department of Mathematics, Rutgers University, Newark, NJ 07102 USA; e-mail: feighn@andromeda.rutgers.edu

Harmonic analysis and complex analysis, MALABIKI PRAMANIK, Department of Mathematics, University of British Columbia, 1984 Mathematics Road, Vancouver, British Columbia, Canada V6T 1Z2; e-mail: malabika@math.ubc.ca

Harmonic analysis, representation theory, and Lie theory, ERIK VAN DEN BAN, Department of Mathematics, Utrecht University, P.O. Box 80 110, 3508 TA Utrecht, The Netherlands; e-mail: E.P.vandenBan@uu.nl

Logic, ANTONIO MONTALBAN, Department of Mathematics, Evans Hall 589, University of California, Berkeley, CA 94720, USA; e-mail: antonio@math.berkeley.edu

Number theory, SHANKAR SEN, Department of Mathematics, 505 Malott Hall, Cornell University, Ithaca, NY 14853 USA; e-mail: sshankar@cornell.edu

Partial differential equations, MARKUS R. KEEL, School of Mathematics, University of Minnesota, Minneapolis, MN 55455 USA; e-mail: keel@math.umn.edu

Partial differential equations and functional analysis, ALEXANDER A. KISELEV, Department of Mathematics, University of Wisconsin, Madison, 480 Lincoln Drive, Madison, WI 53706 USA; e-mail: kiselev@math.wisc.edu

Probability and statistics, PATRICK J. FITZSIMMONS, Department of Mathematics, University of California, San Diego, 9500 Gilman Drive, La Jolla, CA 92093-0112 USA; e-mail: pfitzsim@usc.edu

Real analysis and partial differential equations, WILHELM SCHLAG, Department of Mathematics, The University of Chicago, 5734 South University Avenue, Chicago, IL 60637 USA; e-mail: schlag@math.uchicago.edu

All other communications to the editors should be addressed to the Managing Editor, ALEJANDRO ADEM, Department of Mathematics, University of British Columbia, Room 121, 1984 Mathematics Road, Vancouver, British Columbia, Canada V6T 1Z2; e-mail: transactions@math.ubc.ca

MEMOIRS OF THE AMERICAN MATHEMATICAL SOCIETY

Memoirs is devoted to research in pure and applied mathematics of the same nature as Transactions. An issue consists of one or more separately bound research tracts for which the authors provide reproduction copy. Papers intended for Memoirs should normally be at least 80 pages in length. Memoirs has the same editorial committee as Transactions; authors may choose an Editor from the list above upon submission.
Yanqiu Guo and Mohammad A. Rammaha, Systems of nonlinear wave equations with damping and supercritical boundary and interior sources 2265
Hannes Thiel and Wilhelm Winter, The generator problem for $\mathcal{Z}$-stable $C^*$-algebras ................................................................. 2327
Dominique Lecomte and Miroslav Zeleny, Baire-class $\xi$ colorings: The first three levels ..................................................... 2345
Gene Abrams, Jason P. Bell, and Kulumani M. Rangaswamy, On prime nonprimitive von Neumann regular algebras .................. 2375
Uri Andrews and Alice Medvedev, Recursive spectra of strongly minimal theories satisfying the Zilber Trichotomy ......................... 2393
Rui Loja Fernandes and Ivan Struchiner, The classifying Lie algebra of a geometric structure I: Classes of coframes ......................... 2419
Armand Brumer and Kenneth Kramer, Paramodular abelian varieties of odd conductor ............................................................ 2463
Hongjia Chen, Nicolas Guay, and Xiaoguang Ma, Twisted Yangians, twisted quantum loop algebras and affine Hecke algebras of type $BC$ . 2517
Sandro Coriasco and Michael Ruzhansky, Global $L^p$ continuity of Fourier integral operators .................................................. 2575
Piotr Niemiec, Isometry groups of proper metric spaces ................... 2597
W. Patrick Hooper, An infinite surface with the lattice property I: Veech groups and coding geodesics ........................................... 2625
B. Monson, Daniel Pellicer, and Gordon Williams, Mixing and monodromy of abstract polytopes ........................................... 2651
Alexander Dranishnikov and Michael Levin, Dimension of the product and classical formulae of dimension theory ...................... 2683
Henri Anciaux, Spaces of geodesics of pseudo-Riemannian space forms and normal congruences of hypersurfaces ...................... 2699
Liang Zhang, Packing dimension of images of additive Lévy processes .... 2719
Hiraku Nozawa, Deformation of Sasakian metrics .......................... 2737
Xavier Guitart, Victor Rotger, and Yu Zhao, Almost totally complex points on elliptic curves .................................................... 2773
Laura Ciobanu and Susan Hermiller, Conjugacy growth series and languages in groups ....................................................... 2803