

Notices

of the American Mathematical Society

September 2015

Volume 62, Number 8

Gauss's Hidden Menagerie:
From Cyclotomy to
Supercharacters

page 878

To the Memory of Lars
Hörmander (1931–2012)

page 890

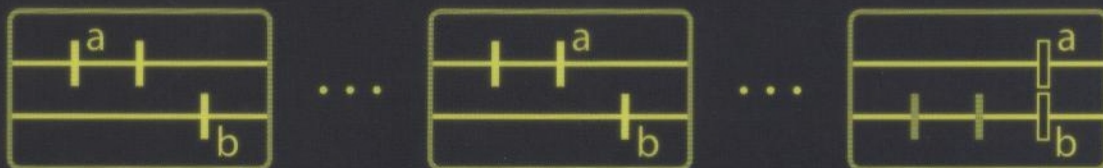
Mathematical Research in
High School: The PRIMES
Experience

page 910



Rutgers Meeting

page 1012



Notices

of the American Mathematical Society

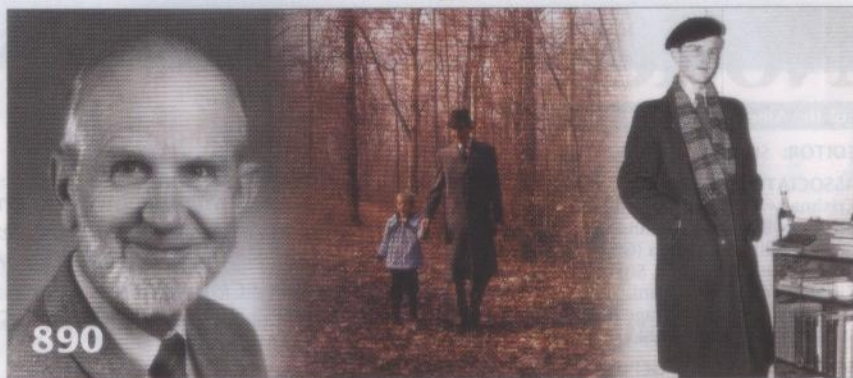
September 2015

Communications

- 920** *Doceamus*: Increasing Diversity and Inclusion for Women in STEM
Dandrielle C. Lewis

Commentary

- 924** Van der Waerden in the Third Reich—A Book Review
Reinhard Siegmund-Schultze



890

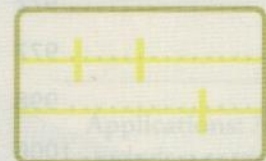
As we return to our teaching duties, it is both comforting and edifying to have a new issue of the *Notices* to turn to.

The September issue contains an interview with the creators of PRIMES, an MIT research-based program for high school students. September also offers a compelling piece on the question of diversity for women in the STEM disciplines. There is a piece on Gauss's hidden menagerie of dazzling visuals. And the September issue features a memorial to eminent Swedish mathematician Lars Hörmander.

—Steven G. Krantz, Editor

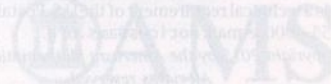
Features

- 878** Gauss's Hidden Menagerie: From Cyclotomy to Supercharacters
Stephan Ramon Garcia, Trevor Hyde, and Bob Lutz
- 890** To the Memory of Lars Hörmander (1931-2012)
Jan Boman and Ragnar Sigurdsson,
Coordinating Editors
- 910** Mathematical Research in High School: The PRIMES Experience
Pavel Etingof, Slava Gerovitch, and Tanya Khovanova



The American Mathematical Society

is an Affirmative Action/Equal



Notices

of the American Mathematical Society

EDITOR: Steven G. Krantz

ASSOCIATE EDITORS:

Krishnaswami Alladi, David Bailey, Eric Bedford, Jonathan Borwein, Susanne C. Brenner, Danny Calegari, Bill Casselman (Graphics Editor), Jennifer Chayes, Gerald Folland, Susan Friedlander, Robion Kirby, Rafe Mazzeo, Frank Morgan, Harold Parks, Mark Saul, Carla D. Savage (*ex-officio*), Steven Strogatz, and James Walker

SENIOR WRITER and DEPUTY EDITOR:

Allyn Jackson

MANAGING EDITOR: Rachel L. Rossi

CONTRIBUTING WRITER: Elaine Kehoe

CONTRIBUTING EDITOR: Randi D. Ruden

EDITORIAL ASSISTANT: David M. Collins

COMPOSITION, DESIGN, AND EDITING:

Kyle Antonevich, Michael Hagggett, Anna Hattoy, Teresa Levy, Mary Medeiros, Stephen Moye, Lori Nero, Karen Ouellette, Gil Poulin, Courtney Rose, Deborah Smith, Peter Sykes

ADVERTISING SALES: Anne Newcomb

SUBSCRIPTION INFORMATION: Subscription prices for Volume 62 (2015) are US\$592 list; US\$473.60 institutional member; US\$355.20 individual member; US\$532.80 corporate member. (The subscription price for members is included in the annual dues.) A late charge of 10% of the subscription price will be imposed upon orders received from nonmembers after January 1 of the subscription year. Add for postage: Surface delivery outside the United States and India—US\$27; in India—US\$40; expedited delivery to destinations in North America—US\$35; elsewhere—US\$120. Subscriptions and orders for AMS publications should be addressed to the American Mathematical Society, P.O. Box 845904, Boston, MA 02284-5904 USA. All orders must be prepaid.

ADVERTISING: *Notices* publishes situations wanted and classified advertising, and display advertising for publishers and academic or scientific organizations. Advertising material or questions may be sent to c1assads@ams.org (classified ads) or to notices-ads@ams.org (display ads).

SUBMISSIONS: Articles and letters may be sent to the editor by e-mail at notices@math.wustl.edu, by fax at 314-935-6839, or by postal mail at Department of Mathematics, Washington University in St. Louis, Campus Box 1146, One Brookings Drive, St. Louis, MO 63130. E-mail is preferred. Correspondence with the managing editor may be sent to notices@ams.org. For more information, see the section "Reference and Book List".

NOTICES ON THE AMS WEBSITE: Supported by the AMS membership, most of this publication is freely available electronically through the AMS website, the Society's resource for delivering electronic products and services. Use the URL www.ams.org/notices/ to access the *Notices* on the website. [Notices of the American Mathematical Society (ISSN 0002-9920) is published monthly except bimonthly in June/July by the American Mathematical Society at 201 Charles Street, Providence, RI 02904-2294 USA, GST No. 12189 2046 RT****. Periodicals postage paid at Providence, RI, and additional mailing offices. POSTMASTER: Send address change notices to Notices of the American Mathematical Society, P.O. Box 6248, Providence, RI 02940-6248 USA. Publication here of the Society's street address and the other information in brackets above is a technical requirement of the U.S. Postal Service. Tel: 401-455-4000, e-mail: notices@ams.org.

© Copyright 2015 by the American Mathematical Society.

All rights reserved.

Printed in the United States of America. The paper used in this journal is acid-free and falls within the guidelines established to ensure permanence and durability.

Departments

Mathematics People 958

Scholze Awarded Ostrowski Prize, 2015 Henri Poincaré Prizes Awarded, Babai Awarded Knuth Prize, Spielman and Teng Awarded Gödel Prize, Ghys Receives Clay Award for Dissemination, Awards of the AWM, Guth and Katz Receive Clay Research Award, Ford Foundation Fellowships Awarded, AMS Menger Awards at the 2015 ISEF, Mathematical Sciences Awards at ISEF.

Mathematics Opportunities 963

American Mathematical Society Centennial Fellowship, Call for Nominations for the Award for Impact on the Teaching and Learning of Mathematics, AWM Travel Grants for Women, Call for Nominations for Clay Research Fellowships, NRC-Ford Foundation Fellowships, News from CIRM, News from BIRS, Modern Math Workshop, 2015, Washington, DC, Mathematical Sciences Research Institute, Berkeley, CA.

About the Cover 967

For Your Information 968

Committee on Women and Mathematics of the IMU.

Inside the AMS 969

AMS Congressional Fellow Chosen, 2015 AMS-AAAS Mass Media Fellow Chosen, AMS Sponsors Exhibit on Capitol Hill, From the AMS Public Awareness Office, Deaths of AMS Members.

Reference and Book List 972

Mathematics Calendar 977

New Publications Offered by the AMS 998

Classified Advertisements 1006

Meetings and Conferences of the AMS 1009

Meetings and Conferences Table of Contents 1024

From the AMS Secretary

Special Section—2015 American Mathematical Society Elections 931

Opinions expressed in signed *Notices* articles are those of the authors and do not necessarily reflect opinions of the editors or policies of the American Mathematical Society.