CODEN IJMTAW VOLUME 26 NUMBER 1 *PAGES 1-180 SPRING 1982 ISSUE 102* 

**. . . . . . . . . . . . . . .** .

# ILLINOIS JOURNAL OF MATHEMATICS

a quarterly journal published by the UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN

. . . . . . . . . . . . . . . .

# edited by

FELIX ALBRECHT LOUIS AUSLANDER MAHLON M. DAY IRVING REINER HAROLD M. STARK DANIEL W. STROOCK KAREN UHLENBECK

# **ILLINOIS JOURNAL OF MATHEMATICS**

## Manuscript

Original research papers in pure and applied mathematics intended for publication in this journal may be written in English, French or German. They should be addressed to the Illinois Journal of Mathematics, 1409 West Green Street, University of Illinois at Urbana-Champaign, Illinois 61801, or one of the editors:

FELIX ALBRECHT, Department of Mathematics, 1409 West Green Street, University of Illinois at Urbana-Champaign, Illinois, 61801.

LOUIS AUSLANDER, Department of Mathematics, Graduate School and University Center, 33 West 42nd Street, City University of New York, New York, N.Y. 10036.

MAHLON M. DAY (Managing Editor), Department of Mathematics, 1409 West Green Street, University of Illinois at Urbana-Champaign, Illinois, 61801.

IRVING REINER, Department of Mathematics, 1409 West Green Street, University of Illinois at Urbana-Champaign, Illinois, 61801.

HAROLD M. STARK, Department of Mathematics C-012, University of California at San Diego, La Jolla, California 92093.

DANIEL W. STROOCK, Department of Mathematics, Box 426, University of Colorado, Boulder, Colorado 80309.

KAREN UHLENBECK, Department of Mathematics, Box 4348, University of Illinois at Chicago Circle, Chicago, Illinois 60680.

All papers should be typewritten, double spaced, and the author should keep a complete copy. Bibliography and footnotes should be typed, double-spaced, on separate sheets of paper. Figures should be drawn separately in black ink on white paper suitable for being photographed and reduced (lettering included) to half size.

### Proof

Authors will receive only galley proof. Proof sent to North American addresses will be accompanied by manuscript and sent by first class mail. To other addresses, proof will be sent by airmail, and manuscript will be sent only if requested. Authors are asked to return proof (and manuscript if sent) by the same class of mail that was used in sending it to them.

## Page charges

To cover a part of the cost of production, the author's institution will be billed for \$40 per page.

### Reprints

One hundred free reprints are supplied to the sole author of a paper: fifty free reprints are supplied to each author of a joint paper. Additional reprints may be purchased.

The ILLINOIS JOURNAL OF MATHEMATICS (ISSN 0019-2089) is published quarterly by the University of Illinois Press. Entered as second-class matter June 4, 1957 at the post office at Urbana, Illinois, under the act of August 24, 1912. Office of publication, University of Illinois Press, 54 E. Gregory Drive. Box 5081, Station A, Champaign, Illinois 61920.

© 1982 by the Board of Trustees of the University of Illinois Manufactured in the United States of America