

# HIROSHIMA MATHEMATICAL JOURNAL

---

VOLUME 51, NUMBER 1

MARCH, 2021

---

PUBLISHED BY  
MATHEMATICS PROGRAM  
GRADUATE SCHOOL OF  
ADVANCED SCIENCE AND ENGINEERING  
HIROSHIMA UNIVERSITY

# Hiroshima Mathematical Journal

## Editors

Yuki NAITO (Managing Editor)

Makoto ABE

Akihiko INOUE

Shun-ichi KIMURA

Yuya KODA

Tetsu MIZUMACHI

Sungrim SEIRIN-LEE

Hirofumi WAKAKI

Shoichi FUJIMORI

Mishio KAWASHITA

Ryo KOBAYASHI

Makoto MATSUMOTO

Kunimochi SAKAMOTO

Ichiro SHIMADA

Hirokazu YANAGIHARA

Hiroshima Mathematical Journal is a continuation of Journal of Science of the Hiroshima University, Series A, Vol. 1~Vol. 24 (1930~1960) and Journal of Science of the Hiroshima University, Series A-I, Vol. 25~34 (1961~1970).

Starting with Volume 4 (1974), each volume of Hiroshima Mathematical Journal consists of three numbers annually. This journal publishes original papers in pure and applied mathematics.

Copyright © by Editorial Board of Hiroshima Mathematical Journal  
Mathematics Program, Graduate School of Advanced Science and Engineering  
Hiroshima University

Printed by  
Letterpress Co., LTD.  
Hiroshima, Japan

## Instructions for Authors

1. Manuscripts should be written in English and should contain
  - (i) title
  - (ii) name(s) of author(s)
  - (iii) abstract
  - (iv) 2010 Mathematics Subject Classification Numbers, and key words and phrases
  - (v) body of the paper
  - (vi) references
  - (vii) affiliation(s), address(es) and e-mail address(es)in this order. For symbols and style conventions, authors should consult current issues of the journal. Color printing may be accepted with some possible charge.

2. In case submission is made via a postal mail, manuscripts should be submitted in duplicate to the HMJ office. Attached should be a separated sheet containing
  - (a) the title of the paper
  - (b) the mailing address (and an e-mail address) of the author who is responsible for proof-readings
  - (c) the running title (condensed title of less than 30 characters).

The manuscript will not usually be returned to the author.

It is preferred that manuscripts be prepared using the LaTeX2e style file of HMJ, which is available from the HMJ webpage, with no special macros. Then it is only necessary for the author to submit a LaTeX source file together with a pdf file (or a dvi file) and (a), (b) and (c) to the HMJ office by e-mail. If we have a trouble in handling the files, then the author may be asked to send a printed manuscript as well.

The LaTeX style file of HMJ, its documentation, and a sample tex file can be obtained from the HMJ webpage.

3. When the manuscript is accepted for publication, the author will be asked for the LaTeX source file and the pdf file (the dvi file) which must be identical to that of the final version of the manuscript.
4. The pdf files of papers published in the journal will be offered to the public without charge on the HMJ webpage. The author will be asked to give consent for the journal to publish electronically as well as in print. Authors reserve the right to post their papers on the authors' homepages.
5. The address and the e-mail address of the HMJ office are:

Hiroshima Mathematical Journal  
Mathematics Program  
Graduate School of  
Advanced Science and Engineering  
Hiroshima University  
Higashi-Hiroshima 739-8526 Japan

Tel: +81-82-424-7350

Fax: +81-82-424-0710

E-mail: [hmj@hiroshima-u.ac.jp](mailto:hmj@hiroshima-u.ac.jp)

HMJ webpage: <http://www.math.sci.hiroshima-u.ac.jp/hmj/index.html>

CONTENTS

	PAGE
<b>W. MAHMOOD:</b> On cohomologically complete intersection modules.....	1
<b>F. MAEDA, Y. MIZUTA, T. OHNO and T. SHIMOMURA:</b> Boundedness of maximal operator, Hardy operator and Sobolev’s inequalities on non-homogeneous central Herz-Morrey-Musielak-Orlicz spaces.....	13
<b>R. MORTINI and R. RUPP:</b> A note on simultaneous approximation on Vitushkin sets.....	57
<b>S. ICHIKI:</b> Generic distance-squared mappings on plane curves.....	65
<b>S. HANDA and M. ISHIKAWA:</b> S-stable foliations on flow-spines with transverse Reeb flow .....	77
<b>M. TANGE:</b> The third term in lens surgery polynomials.....	101