

Real Analysis Exchange

**Volume 7
1981/82**

Reprinted with the permission of the original publisher
by
Periodicals Service Company
Hudson, NY
2017

Printed on acid-free paper.

**This reprint was reproduced from the
best original edition copy available.**

NOTE TO THE REPRINT EDITION:

**In some cases full page advertisements which do not add to
the scholarly value of this volume have been omitted.
As a result, some reprinted volumes may have irregular pagination.**

VOLUME 7 NO. 1 - 1981-82

REAL ANALYSIS EXCHANGE

CONTENTS

EDITORIAL MESSAGES	3
TOPICAL SURVEY	
M.J. Evans and C.E. Weil Peano Derivatives: A Survey	5
PROCEEDINGS OF THE FOURTH SUMMER SYMPOSIUM	25
RESEARCH ARTICLES	
F. Guénard Sur la construction de mesures associees aux contractions asymptotiques des intervalles	117
J.S. Lipiński On continuous periodic extensions of functions	129
J. Mařík On a space of functions representable by derivatives	135
I. Solomon Some theorems on Dini derivates	149
J. Ceder Some examples on continuous restrictions	155
INROADS	
A.K. Layek On strong essential cluster sets	163
H.W. Pu A Darboux property for transformations	169
J.M. Jedrzejewski On Darboux asymmetry	172
SYMPOSIA ANNOUNCEMENTS	177
QUERIES	179

REAL ANALYSIS
EXCHANGE

EDITORIAL BOARD

MANAGING EDITORS

Michael J. Evans
Western Illinois University
Macomb, Illinois 61455

Paul D. Humke
St. Olaf College
Northfield, Minnesota 55057

ASSOCIATE EDITORS

Richard Fleissner
Western Illinois University
Macomb, Illinois 61455

James Foran
University of Missouri -
Kansas City
Kansas City, Missouri 64108

Richard J. O'Malley
University of Wisconsin -
Milwaukee
Milwaukee, Wisconsin 53201

Clifford E. Weil
Michigan State University
East Lansing, Michigan 48824

Library of Congress Catalog Card Number
77-647120

International Standard Serial Number
0147-1937

Notice to Contributors

1. Any author interested in writing a Topical Survey article should contact one of the Managing Editors for information concerning format and length.
2. Research articles as well as Inroads should be typed in camera-ready form. They should have one inch margins on the top and bottom and one and one-half inch margins on both sides for binding purposes. Contributors should take note of the heading for Inroads and Research articles. The deadline for acceptance of these articles is November 1 for the Winter edition of the Exchange. The deadline for the Spring Exchange is April 1.
3. Queries should be typed and any appropriate bibliographical or historical information should be included. Solutions to previous Queries should have the same margins as the Inroads articles and should also be in camera-ready form. Lengthy Query solutions will be published within the Inroads section of the Exchange. The deadline for Queries to be published in the Winter Exchange is November 15 and the deadline for the Spring Exchange is April 1.

All correspondence with the Exchange should be sent to the following address.

Real Analysis Exchange
Morgan Hall 476
Western Illinois University
Macomb, Illinois 61455

Subscription Information

Annual (Academic Year) Subscription (two issues):

<u>Individuals</u>	<u>Libraries</u>
\$3.00	\$5.00

PROCEEDINGS
OF THE
REAL ANALYSIS SUMMER SYMPOSIUM
JULY 9-12, 1981
SYRACUSE UNIVERSITY

Introductory Remarks.....	27
Program.....	30
Summaries of Presentations	
P. D. Humke	
<i>Some problems in need of solution.....</i>	31
T. Nishiura	
<i>Lebesgue area and DeGiorgi perimeter</i>	
<i>of the boundary of a topological ball in \mathbb{R}^n.....</i>	42
G. E. Cross	
<i>On functions with non-negative divided differences.....</i>	53
J. Mařík and C. E. Weil	
<i>Products of derivatives and approximate continuity.....</i>	54
M. J. Schramm	
<i>Fourier series of functions of generalized</i>	
<i>bounded variation.....</i>	58
C.-M. Lee	
<i>On Baire one Darboux functions with</i>	
<i>Lusin's condition (N).....</i>	61
K. M. Garg	
<i>A new notion of derivative.....</i>	65
C. Goffman	
<i>Modification of functions.....</i>	85
J. Troutman	
<i>The use of partially convex functions</i>	
<i>in the calculus of variations.....</i>	89

G. Petruska	
<i>Sectionwise properties and averaging processes.....</i>	93
M. J. Evans and C. E. Weil	
<i>On iterated L_p derivatives.....</i>	112
F. Guénard	
<i>Sur la construction de mesures associees aux contractions asymptotiques des intervalles.....</i>	117
J. S. Lipiński	
<i>On continuous periodic extensions of functions.....</i>	129