

Groups of Diffeomorphisms
in honor of Shigeyuki Morita
on the occasion of his 60th birthday

**ADVANCED STUDIES
IN PURE MATHEMATICS 52**

Chief Editor of the Series: Toshitake Kohno (The University of Tokyo)

**Groups of Diffeomorphisms
in honor of Shigeyuki Morita
on the occasion of his 60th birthday**

Edited by

Robert Penner

(University of Southern California/Aarhus University)

Dieter Kotschick

(Ludwig-Maximilians-Universität München)

Takashi Tsuboi

(The University of Tokyo)

Nariya Kawazumi

(The University of Tokyo)

Teruaki Kitano

(Soka University)

Yoshihiko Mitsumatsu

(Chuo University, chief editor of the volume)



Mathematical Society of Japan

This book was typeset by $\text{\AA}\text{M}\text{S-}\text{T}\text{E}\text{X}$ and $\text{\AA}\text{M}\text{S-}\text{L}\text{A}\text{T}\text{E}\text{X}$, the TEX macro systems of the American Mathematical Society, together with the style files `aspm.sty` and `aspmfm.sty` for $\text{\AA}\text{M}\text{S-}\text{T}\text{E}\text{X}$ written by Dr. Chiaki Tsukamoto and `aspmproc.sty` for $\text{\AA}\text{M}\text{S-}\text{L}\text{A}\text{T}\text{E}\text{X}$ written by Dr. Akihiro Munemasa and `aspm.cls` for $\text{\AA}\text{M}\text{S-}\text{L}\text{A}\text{T}\text{E}\text{X}$ provided by Tokyo Shoseki Printing Co., Ltd.

TEX is a trademark of the American Mathematical Society.

©2008 by the Mathematical Society of Japan.

All rights reserved. The Mathematical Society of Japan retains the copyright of the articles in the present volume except those indicated in the footnotes. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the copyright owner.

Edited by the Mathematical Society of Japan.

Published by the Mathematical Society of Japan.

Distributed by the Mathematical Society of Japan, the American Mathematical Society and the World Scientific Publishing Co., Ltd.

Distributed exclusively in North America by the American Mathematical Society.

Advanced Studies in Pure Mathematics 52

ISBN 978-4-931469-48-8

PRINTED IN JAPAN

by Tokyo Shoseki Printing Co., Ltd.

2000 Mathematics Subject Classification.

Primary 57–06.

Secondary 19D06, 19D10, 37C85, 37D40, 37E10, 37E25, 37E30, 53D05, 53D10, 53D12, 53D35, 53D40, 53D45, 55P35, 55P47, 55P62, 55R35, 55R40, 57R17, 57R19, 57R20, 57R30, 57R32, 57R50, 57S05, 57S25, 57S30, 58H10.

Advanced Studies in Pure Mathematics

Chief Editor

Toshitake Kohno (Univ. of Tokyo)

Editorial Board of the Series

YOSHIKAZU GIGA (Univ. of Tokyo)	KI-ICHIRO HASHIMOTO (Waseda Univ.)	SHIHOKO ISHII (Tokyo Inst. of Tech.)
TOSHITAKE KOHNO (Univ. of Tokyo)	SADAYOSHI KOJIMA (Tokyo Inst. of Tech.)	MOTOKO KOTANI (Tohoku Univ.)
YOICHI MIYAOKA (Univ. of Tokyo)	KIMIO MIYAJIMA (Kagoshima Univ.)	MASATOSHI NOUMI (Kobe Univ.)
TAKAYUKI ODA (Univ. of Tokyo)	MASAYOSHI TAKEDA (Tohoku Univ.)	