School on Real and Complex Singularities in São Carlos, 2012

## ADVANCED STUDIES IN PURE MATHEMATICS 68

Chief Editor of the Series: Yoshihiro Tonegawa (Tokyo Institute of Technology)

# School on Real and Complex Singularities in São Carlos, 2012

Edited by

Raimundo Nonato Araújo dos Santos (Universidade de São Paulo) Victor Hugo Jorge Pérez (Universidade de São Paulo) Takashi Nishimura (Yokohama National University) Osamu Saeki (Kyushu University)



This book was typeset by  $\mathcal{A}_{\mathcal{M}}S$ - $\mathcal{T}_{E}X$  and  $\mathcal{A}_{\mathcal{M}}S$ - $\mathcal{H}_{E}X$ , the  $\mathcal{T}_{E}X$  macro systems of the American Mathematical Society, together with the style files  $\operatorname{aspm.sty}$  and  $\operatorname{aspmfm.sty}$  for  $\mathcal{A}_{\mathcal{M}}S$ - $\mathcal{H}_{E}X$  written by Dr. Chiaki Tsukamoto and  $\operatorname{aspmproc.sty}$  for  $\mathcal{A}_{\mathcal{M}}S$ - $\mathcal{H}_{E}X$  written by Dr. Akihiro Munemasa and  $\operatorname{aspm.cls}$  for  $\mathcal{A}_{\mathcal{M}}S$ - $\mathcal{H}_{E}X$  provided by Livretech Co., Ltd.

TEX is a trademark of the American Mathematical Society.

© 2016 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 68 ISBN 978-4-86497-030-3

PRINTED IN JAPAN by Livretech Co., Ltd.

2010 Mathematics Subject Classification.

Primary 32Sxx.

Secondary 14Pxx, 14Bxx, 14Qxx, 57Rxx, 34Cxx.

## Advanced Studies in Pure Mathematics

### **Chief Editor**

Yoshihiro Tonegawa (Tokyo Inst. of Tech.)

### Editorial Board of the Series

SHIGEKI AIDA (Tohoku Univ.)	Martin Guest (Waseda Univ.)	KENGO HIRACHI (Univ. of Tokyo)
Tatsuya Koike (Kobe Univ.)	KAYO MASUDA (Kwansei Gakuin Univ.)	SHIN NAYATANI (Nagoya Univ.)
TAKAVIKI ODA	KELLI OCUISO	Ken'ichi Ouchik

TAKAYUKI ODA KEIJI OGUISO KEN'ICHI OHSHIKA (Univ. of Tokyo) (Univ. of Tokyo) (Osaka Univ.)

YOSHIHIRO TONEGAWA AKIHIKO YUKIE (Tokyo Inst. of Tech.) (Kyoto Univ.)