Algebraic Varieties and Automorphism Groups

## ADVANCED STUDIES IN PURE MATHEMATICS 75

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

## Algebraic Varieties and Automorphism Groups

Edited by

Kayo Masuda (Kwansei Gakuin University)
Takashi Kishimoto (Saitama University)
Hideo Kojima (Niigata University)
Masayoshi Miyanishi (Kwansei Gakuin University)
Mikhail Zaidenberg (Université Grenoble Alpes)



This book was typeset by  $\mathcal{AMS}$ - $T_{EX}$  and  $\mathcal{AMS}$ - $PT_{EX}$ , the  $T_{EX}$  macro systems of the American Mathematical Society, together with the style files aspm.sty and aspmfm.sty for  $\mathcal{AMS}$ - $T_{EX}$  written by Dr. Chiaki Tsukamoto and aspmproc.sty for  $\mathcal{AMS}$ - $PT_{EX}$  written by Dr. Akihiro Munemasa and aspm.cls for  $\mathcal{AMS}$ - $PT_{EX}$ provided by Livretech Co., Ltd.

TEX is a trademark of the American Mathematical Society.

©2017 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. Partially supported by Grant-in-Aid for Publication of Scientific Research Results, Japan Society for the Promotion of Science, Grant Number 17HP1002.

Advanced Studies in Pure Mathematics 75 ISBN 978-4-86497-048-8

> PRINTED IN JAPAN by Livretech Co., Ltd.

2010 Mathematics Subject Classification.

Primary 14-06.

## **Advanced Studies in Pure Mathematics**

Chief Editor

Yoshihiro Tonegawa (Tokyo Inst. of Tech.)

## Editorial Board of the Series

Shigeki Aida	MARTIN GUEST	Kengo Hirachi
(Univ. of Tokyo)	(Waseda Univ.)	(Univ. of Tokyo)
YUKARI ITO	Shinichi Kobayashi	TATSUYA KOIKE
(Nagoya Univ./Kavli IPMU, Univ. of Tokyo)	(Kyushu Univ.)	(Kobe Univ.)
Kayo Masuda	Kenji Nakanishi	Shin Nayatani
(Kwansei Gakuin Univ.)	(Osaka Univ.)	(Nagoya Univ.)
KEIJI OGUISO	KEN'ICHI OHSHIKA	WAYNE ROSSMAN
(Univ. of Tokyo)	(Osaka Univ.)	(Kobe Univ.)
Yoshihiro Tonegawa	Ken-ichi Yoshikawa	AKIHIKO YUKIE
(Tokyo Inst. of Tech.)	(Kyoto Univ.)	(Kyoto Univ.)