

Preface

The present volume consists of four research articles contributed by participants of the international conference *Higher Dimensional Algebraic Varieties*, 1997, at the Research Institute of Mathematical Sciences (RIMS), Kyoto University during June 2–6 and 9–13, 1997.

The conference, held as part of the special year activities of RIMS during the academic year 1996/97 and cosponsored by the Mathematical Society of Japan, represented the high level of the birational geometry at the time. The invited speakers and their talks were:

- Y. Miyaoka (U. Tokyo), On a numerical characterization of \mathbf{P}^n .
- N. Nakayama (RIMS), Projective manifolds whose universal covering spaces are \mathbf{C}^n .
- A. Corti (U. Cambridge), Birationally rigid \mathbf{Q} -Fano hypersurfaces I (Excluding maximal singularities).
- M. Reid (Warwick U.), Birationally rigid \mathbf{Q} -Fano hypersurfaces II (Constructing birational involutions and untwisting).
- J. Kollár (Princeton U.), Polynomials with integral coefficients.
- F. Bogomolov (Courant Inst.), Weak Hironaka theorem.
- Y. Kawamata (U. of Tokyo), Unobstructed deformations and index 1 covers.
- S. Keel (1) (U. Texas, Austin), Eventual freeness in char p , with applications to M_g and to 3-fold MMP.
- L. Ein (U. Illinois at Chicago), Singularities of theta divisors and birational geometry of irregular varieties.
- S. Helmke (RIMS), On global generation of adjoint linear systems.
- K. Matsuki (Purdue U.), Surface log terminal singularities in positive characteristic.
- S. Mukai (RIMS), Degeneration of $\mathbf{P}^n \times \mathbf{P}^n$ with application to del Pezzo fibration.
- V. Alexeev (U. Georgia), Log canonical singularities and complete moduli.
- G. Sankaran (U. Bath), Abelian surfaces in toric 4-folds.
- S. Keel (2) (U. Texas, Austin), Rational curves on open surfaces I.
- J. McKernan (U. C. Santa Barbara), Rational curves on open surfaces II.
- S. Mori (RIMS), On Reid's conjecture on general elephants.
- M. Hanamura (Kyushu U.), Mixed motivic sheaves

In the second week, more informal talks were given: