

FOREWORD

Professor Kunihiko Kodaira is one of the greatest mathematicians of the twentieth century, and this issue is dedicated to him to commemorate his one hundredth birthday. The authors of the articles included in this issue belong to various generations. There is one of his colleagues when he was a professor at the University of Tokyo (Shioda). The others are indirectly but deeply influenced by him through his publications. All of them respect the great mathematician and contributed their recent achievements following his legacy.

Kodaira initiated the deformation theory of complex manifolds in collaboration with D. C. Spencer. There are four papers on the deformation theory in this issue; on special deformations of submanifolds by Bandiera and Manetti, on the behavior of algebraic dimensions under deformations by Barlet, on Poisson deformations by Namikawa, and on the degeneration of Kähler manifolds by Takayama.

Kodaira started the classification theory of compact complex surfaces. There are four papers on surfaces; on moduli spaces of some general type surfaces by Bauer, Catanese and Frapporti, on singularities of surfaces in positive characteristic by Hara, on constructible sheaves on surfaces by Saito, and on Mordell-Weil lattices of Fermat surfaces by Shioda. Kodaira's works inspired the investigation of birational geometry of higher dimensional varieties. There are two papers on minimal models in birational geometry; on log canonical pairs by Fujino, on Mori fiber structure for Kähler manifolds by Höring and Peternell. The papers by Namikawa and Takayama are also related to this subject.

Kodaira received a Fields Medal for his works on Kähler manifolds. There are two papers related to Kähler structures; on the primitive automorphisms of Calabi-Yau manifolds by Oguiso and Truong, and on the generalized Hodge and Bloch conjectures by Voisin. The papers by Höring-Peternell and Takayama are also related to the subject.

Kodaira liked explicit and enlightening examples. There is a contribution by Kollár on real enumerative geometry. Brion treats a subtle problem of linearizations of line bundles. There are also contributions by young

mathematicians Möllers and Oshima related to early works of Kodaira, and Imai on an arithmetic problem of elliptic curves.

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