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Dedication

Professor Haruo Suzuki celebrated his sixtieth birthday on January 21, 1991. The present issue of Hokkaido Mathematical Journal is dedicated to him. We collect papers from his friends, collaborators and students to dedicate to him.

Professor Suzuki was born in 1931 and grew up in Asahi, a town along the river Mogami, of Yamagata prefecture of Japan. He graduated from Tôhoku University and was appointed Assistant there in 1953. As a research assistant, he stayed in the University of Chicago from 1955 to 1957 and received the degree of Ph. D. by the thesis [3] under the guidance of Professor S. S. Chern. He was promoted to Lecturer at Tôhoku University in 1958, and received the degree of Doctor of Science in 1961. He moved to Kyushu University as Associate Professor in 1962, and then to Hokkaido University as Professor in 1967.

He started his mathematical research in the realm of Algebraic Topology [1]. In his thesis [3] and the next paper [4], he studied the realizations of homology classes, especially Stiefel-Whitney classes, by submanifolds. He worked on Eilenberg-MacLane invariants [2], Postnikov systems ([5], [9]), the embeddings of manifolds ([6], [8], [10]), Hopf spaces [7] and operations in KO -theory [11]. He studied the characteristic classes of higher order tangent bundles [12] and the higher order non-singular immersions ([13], [15], [19]). Furthermore, he took interest in almost contact structures [14], $U(n) \times 1$ structures [16] and almost complex structures [21], while he studied S^1 -actions and cobordism groups ([17], [18], [20]). Then, stimulated by the famous Bott's work on the secondary characteristic classes of foliations, he began the research on the characteristic classes of various foliations ([22], [23], [24], [25], [26], [27]) and their relations to the operator theory [28]. In recent years, he is actively engaged in researches about these fields ([29], [30], [31], [32]). In addition to the research papers quoted above, he wrote an expository article [33] and a text book on differentiable manifolds [34].

[13] *Higher order non-singular immersions in projective spaces*, Quart. J. Math. Oxford Ser. (2) 20 (1969), 33-44. MR 39:2170.

Professor Suzuki has also an excellent skill to inspire, stimulate and encourage his students. He raised many mathematicians working in various branches of Topology and Geometry, that is, the theories of singularities, knots, transformation groups, dynamical systems, foliations and so forth.

We all express our sincere congratulations to Professor Suzuki on this occasion of his sixtieth anniversary and hope that he will keep his characteristic vivid curiosity on everything.

T. Nishimori, S. Izumiya, G. Ishikawa
I. Nakai, A. Sannami, M. Takamura
H. Minakawa, K. Matsuda

Publications of Haruo Suzuki

Papers

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- [5] *Multiplications in Postnikov systems and their applications*, Tôhoku Math. J. (2) **12** (1960), 389-399; **MR** 22#12532.
- [6] *An approximation of a convex polyhedra by C^∞ -manifolds in a Euclidean space R^n* , Mem. Fac. Sci. Kyushu Univ. Ser. A **16** (1962), 94-100; **MR** 26#5587.
- [7] *Hopf space mod \mathcal{E}* , Mem. Fac. Sci. Kyushu Univ. Ser. A **17** (1963), 1-9; **MR** 27#6269.
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- [14] *On the topology of some almost contact manifolds*, J. Fac. Sci. Hokkaido Univ. Ser. I **20** (1969), 160-170, (with Koshikawa, Hiroaki); **MR** 39#3521.
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- [18] Spin-cobordism invariants of some S^1 -manifolds, Geometry of manifolds (Proc. Sympos., R. I. M. S., Kyôto Univ., Kyôto, 1972), pp. 36-44. R. I. M. S. Sem. Rep. No. 158, Res. Inst. Math. Sci. Kyôto Univ., Kyôto, 1972; **MR 53**#14519.
- [19] On higher order non-singular immersions of RP^n in CP^m , J. Fac. Sci. Hokkaido Univ. Ser. I **22** (1972), 161-170; **MR 46**#8239.
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- [32] *Holonomy groupoids of generalized foliations. II. Transverse measures and modular classes*, Symplectic geometry, groupoids, and integrable systems (Berkeley, CA, 1989), 267-279, Math. Sci. Res. Inst. Publ., 20, Springer, New York, 1991.

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