



**Tadasi Nakayama**

**1912–1964**

On June 5th, 1964 Dr. Tadasi Nakayama died after the sudden onset of what was to be a long and fatal illness. Death overcame him while he was still in the middle of an active career full of creative work and restless energy. His departure is an incalculable loss to the world's mathematical learning, where he had played so prominent a part—he was a member of Japan Academy, an eminent professor of Nagoya University, a leading algebraist, and editor-in-chief of the Nagoya Mathematical Journal. It is with great sorrow that his family, colleagues, students and friends lament his passing.

Tadasi Nakayama was born on the 26th of July, 1912 in Tokyo. It was in this city that he completed his elementary and secondary schooling and his university studies, with the highest scholastic records throughout his schools. Studying under T. Takagi, he received his diploma, *Rigakushi*, in 1935, from Tokyo Imperial University. That same year he was appointed assistant to Osaka Imperial University, where his scholarly development was to be remarkably influenced by K. Shoda. In 1937 he became assistant professor of Osaka Imperial University. That same year he was invited to the Institute for Advanced Study, Princeton, New Jersey, U.S.A., and stayed there until 1939. The outstanding mathematicians at the Institute then had strong influences on his work, particularly H. Weyl and R. Brauer. In 1941 the doctoral degree, *Rigakuhakushi*, was conferred on him from Osaka Imperial University ([20], [28])\* . In 1942 he came to Nagoya Imperial University and in 1944 he was appointed professor of Nagoya Imperial University. During the difficult times of World War II he continued his pioneering works in mathematics. In 1947 he, together with Goro Azumaya, was awarded a Chubu Nippon Bunka Sho in recognition of his research in the theory of infinite dimensional algebras. During 1948 and 1949 he visited the University of Illinois, Urbana, Illinois, U.S.A. In 1953, in recognition of his research on the theory of rings and representations the Japan Academy awarded him a Japan Academy Prize. During 1953 and 1955 he visited Europe and U.S.A.: Hamburg University, Hamburg, Germany, and the Institute of Advanced Study, Princeton, New Jersey, U.S.A. In 1963 he was elected a member of the Japan Academy.

In addition to his scientific and educational activities great importance must be attached to the indefatigable labors which he expended for the development of the Mathematical Institute of the Nagoya University. Then he was one of the founders and the editor-in-chief of the Nagoya Mathematical Journal. He was also an always enthusiastic and active member of the Mathematical Society of Japan, under whose auspices he often lectured in many towns of this country. His widespread activity also included his work as the cooperating editor of the Proceedings of the Mathematical Society of Japan and Acta

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\* See the list of papers below.

Arithmetica, and as a reviewer for the Mathematical Reviews and for the Zentralblatt für Mathematik.

To those who knew him the rich legacy of his work will never be separated from his memory as a man, and as a friend. He was a man of rare nobility of mind and great kindness whose life was consumed in incessant labors. His gracious spirit and his modest sympathetic and self-effacing personality will remain an unforgettable and shining example\*.

Redaction of the  
Nagoya Mathematical Journal

\* The description of the scientific work of Tadasi Nakayama will appear in later volumes of this Journal.

## Mathematical works of T. Nakayama

### Books :

1. 局所類体論 (Local Class Field Theory), 1935, 岩波書店
2. 束論 I (Lattice Theory, I), 1944, 岩波書店
3. 代数系と微分 (Algebraic System and Derivation), 1948, 河出書房
4. 集合, 位相, 代数系 (Set, Topology and Algebraic System), 1949, 至文堂
5. 代数学 II (Algebra, II), 1954 (with Goro Azumaya), 岩波書店
6. ホモロヂー代数学 (Homological Algebra), 1957 (with Akira Hattori) 共立出版

### Papers :

- [ 1 ] Ein Satz über  $p$ -adischer Schiefkörper. Proc. Imp. Acad. Tokyo 10, 198–199 (1934).
- [ 2 ] (with K. Shoda) Über das Produkt zweier Algebrenklassen mit zueinander primen Diskriminanten. Proc. Imp. Acad. Tokyo 10, 443–446 (1934).
- [ 3 ] Über die Definition der Shodaschen Diskriminante eines normalen einfachen hyperkomplexen Systems. Proc. Imp. Acad. Tokyo 10, 447–449 (1934).
- [ 4 ] Über die Algebren über einem Körper von der Primzahl-charakteristik. Proc. Imp. Acad. Tokyo 11, 305–306 (1935).
- [ 5 ] Über das direkte Produkt zweier einfachen Algebren mit zueinander teilerfremden  $p$ -Indizen. Jap. J. Math. 12, 27–36 (1935).
- [ 6 ] Über die direkte Zerlegung einer Divisionsalgebra. Jap. J. Math. 12, 65–70 (1935).
- [ 7 ] Über die Algebren über einem Körper von der Primzahl-charakteristik, II. Proc. Imp. Acad. Tokyo 12, 113–114 (1936).
- [ 8 ] Über die Beziehungen zwischen den Faktorensystemen und der Normklassengruppe eines galoisschen Erweiterungskörpers. Math. Ann. 112, 85–91 (1936).
- [ 9 ] Eine Bemerkung über die Summe und den Durchschnitt von zwei Idealen in einer Algebra. Proc. Imp. Acad. Tokyo 12, 179–182 (1936).
- [ 10 ] (with K. Shoda) Über die Darstellung einer endlichen Gruppe durch halbbilineare Transformationen. Jap. J. Math. 12, 109–122 (1936).
- [ 11 ] Maximalordnungen und Erweiterung des Koeffizientenkörpers eines hyperkomplexen Systems. Jap. J. Math. 13, 333–359 (1936).
- [ 12 ] Über die Klassifikation halbbilinear Transformationen. Proc. Phys.-Math. Soc. Jap. 19, 99–107 (1937).

- [13] Divisionsalgebren über diskret bewerteten perfekten Körpern. *J. Reine Angew. Math.* 178, 11–13 (1938).
- [14] Lösung der Aufgabe 222. *Jahr.-Ber. Deutsch. Math. Ver.* 48, 10 (1938).
- [15] (with K. Asano) Über halblineare Transformationen. *Math. Ann.* 115, 87–114 (1938).
- [16] Some studies on regular representations, induced representations and modular representations. *Ann. of Math.* 39, 361–369 (1938).
- [17] A remark on representations of groups. *Bull. Amer. Math. Soc.* 44, 233–235 (1938).
- [18] A note on the elementary divisor theory in noncommutative domains. *Bull. Amer. Math. Soc.* 44, 719–723 (1938).
- [19] (with C. J. Nesbitt) Note on symmetric algebras. *Ann. of Math.* 39, 659–668 (1938).
- [20] On Frobeniusean Algebras, I. *Ann. of Math.* 40, 611–633 (1939).
- [21] Note on uni-serial and generalized uni-serial rings. *Proc. Imp. Acad. Tokyo* 16, 285–289 (1940).
- [22] A remark on the sum and the intersection of two normal ideals in an algebra. *Bull. Amer. Math. Soc.* 46, 469–472 (1940).
- [23] (with K. Asano) A remark on the arithmetic in a subfield. *Proc. Imp. Acad. Tokyo* 16, 529–531 (1940).
- [24] Normal basis of a quasi-field. *Proc. Imp. Acad. Tokyo* 16, 532–536 (1940).
- [25] On some modular properties of irreducible representations of symmetric group, I. *Jap. J. Math.* 17, 165–184 (1940).
- [26] On some modular properties of irreducible representations of symmetric groups, II. *Jap. J. Math.* 17, 411–423 (1940).
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- [31] (with N. Funayama) On the distributivity of a lattice of lattice-congruences. *Proc. Imp. Acad. Tokyo* 18, 553–554 (1942).
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