

Preface to the 24th Takagi Lectures

The Takagi Lectures are expository lectures by the finest contemporary mathematicians.

The Mathematical Society of Japan (MSJ) inaugurated the Takagi Lectures as prestigious research survey lectures. The Takagi Lectures are the first series of the MSJ official lectures in mathematics to be honored with this respected Japanese mathematician's name [2]. The lectures are intended for a wide range of mathematicians, and are as a rule held twice a year. The first Takagi Lectures took place in November 2006 at Research Institute for Mathematical Sciences (RIMS), Kyoto.

Since then Takagi Lectures have been delivered by the following distinguished mathematicians: S. Amari, Y. André, P. F. Baum, Y. Benoist, N. Bergeron, S. Bloch, J.-P. Bourguignon, M. Braverman, S. Brendle, F. Catanese, A. Connes, J.-P. Demailly, H. Duminil-Copin, K. Fukaya, É. Ghys, A. Guionnet, S. Gukov, M. Hairer, M. Harris, M. Hopkins, R. E. Howe, U. Jannsen, V. F. R. Jones, M. Kapranov, M. Kashiwara, C. Kenig, C. Khare, M. Khovanov, M. Kontsevich, L. Lafforgue, J.-F. Le Gall, P.-L. Lions, A. Lubotzky, J. Makino, P. Malliavin, C. Manolescu, F. C. Marques, J. Maynard, D. McDuff, J. McKernan, A. Naor, K.-H. Neeb, N. A. Nekrasov, Ngô Bảo Châu, H. Oh, A. Okounkov, H. Ooguri, S. Popa, P. Scholze, R. Seiringer, S. Smale, G. Tian, A. Venkatesh, A. M. Vershik, C. Villani, O. Viro, D. Vogan, D.-V. Voiculescu, C. Voisin, G. Williamson, S.-T. Yau, and M. Yor.

The Takagi Lectures bear the name of the principal creator of Class Field Theory, Professor Teiji Takagi (1875–1960). In Japan, he is also known as the founder of the Japanese School of modern mathematics [1, 3]. Internationally, he served as one of the first Fields Medal Committee Members in 1936 together with G. D. Birkhoff, É. Cartan, C. Carathéodory, and F. Severi.

The 24th Takagi Lectures are to be held on December 8, 2019, at Kavli Institute for the Physics and Mathematics of the Universe (IPMU), The University of

Tokyo. The distinguished lecturers for the 24th Takagi Lectures are J. Bernstein and R. Schoen.

The lecture notes of the Takagi Lectures are to be published by the *Japanese Journal of Mathematics* (JJM). It is the oldest continuously published mathematical journal in Japan (founded in 1924) and its third series was relaunched in 2006 as a mathematical journal of research survey articles of the highest scientific level in cooperation with Springer. The editors of JJM, Y. Kawahigashi, T. Kumagai, H. Nakajima, K. Ono, T. Saito, and I, also serve as the organizers of the Takagi Lectures. Videos of the lectures will be available on the Internet.

This scheme of the Takagi Lectures is intended to support the mission of continuing the advancement of mathematics, not only in Japan but throughout the world.

The Takagi Lectures are financially supported by the surplus from the International Congress of Mathematicians, which was held in Kyoto in 1990, with funding provided by the MSJ.

I would like to take this opportunity to thank the distinguished lecturers and all those who have supported our endeavors. I hope that the Takagi Lectures will gain the respect of a worldwide audience and will continue to promote future progress in mathematics.

Toshiyuki Kobayashi

Professor of The University of Tokyo

Graduate School of Mathematical Sciences

and

Principal Investigator of Kavli IPMU (WPI)



Teiji Takagi (1875–1960)

Biography of Teiji Takagi

1875 April 21	Born in Gifu, Japan
1894	Entered the Department of Mathematics, Imperial University
1897	Entered the Graduate School of Tokyo Imperial University
1898–1901	Studied in Berlin and Göttingen
1903	Received the degree of Doctor of Science, Tokyo Imperial University
1904	Appointed Professor at Tokyo Imperial University
1920	Published his main paper on the class field theory
1925	Elected Member of the Imperial Academy of Japan
1936	Served on the 1st Fields Medal Committee
1938	Published the book <i>A Course on Analysis</i> (in Japanese)
1940	Received Culture Medal
1960 February 28	Died in Tokyo, Japan

Decorated posthumously with the Order of the Rising Sun of the First Grade

Bibliography

- [1] S. Iyanaga, Chronological synopsis of the life of Teiji Takagi. In: Teiji Takagi Collected Papers, Second Enlarged Edition, Springer-Verlag Tokyo, 1990.
- [2] T. Kobayashi, On the establishment of the Takagi Lectures. *Japan. J. Math.*, **2** (2007), 145–148.
- [3] K. Miyake, Teiji Takagi, Founder of the Japanese School of Modern Mathematics. *Japan. J. Math.*, **2** (2007), 151–164.