



Motoko Kotani

Executive Vice President
for Research

Executive Member, Council for
Science, Technology and
Innovation, the Cabinet Office
Member, Science Council of
Japan

Member, Board of Governors,
Okinawa Institute of Science and
Technology

Board Member of The
Mathematical Society of Japan

■Education

- Dr. Sci., 1990, Tokyo Metropolitan University
- M.S., 1985, Tokyo Metropolitan University
- B.S., 1983, University of Tokyo, Japan

■Career summary

- Principal Investigator, WPI-AIMR, Tohoku University, 2019-Present
- Director, Principal Investigator, WPI-AIMR, Tohoku University, 2012 -2019
- Distinguished Professor, Mathematics Institute, Graduate School of Science, Tohoku University, 2008 -2014
- Professor, Mathematics Institute, Graduate School of Science, Tohoku University, 2004-Present
- Associate Professor, Mathematics Institute, Graduate School of Science, Tohoku University, 1999-2003

■Awards / Fellowships

- The 25th Saruhashi Prize (2005)
- President Special Prize of Tohoku University (2006)
- President Education Award of Tohoku University (2010)

■Research

Geometry, Discrete Geometric Analysis

Mathematics for materials

■Professional Associations

- Executive Member, Council for Science, Technology and Innovation, the Cabinet Office
- Member, Science Council of Japan
- Member, Board of Governors, Okinawa Institute

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- Board Member of The Mathematical Society of Japan

■Languages

Japanese and English

■Publications

- A Discrete Surface Theory, M. Kotani, H. Naito, T. Omori, Computer Aided Geometric Design 58 (2017) 24-54
- Materials inspired by mathematics, M.Kotani and S.Ikeda, Science and Technology of Advanced Materials (STAM), 17(1),(2016),253-259
- A new direction in mathematics for materials science, M.Kotani and S. Ikeda, Springer Briefs in the Mathematics of Materials, vol.1, Springer, 2015
- Geometric frustration of icosahedron in metallic glasses, A. Hirata, L. J. Kang, T. Fujita, B. Klumov, K. Matsue, M. Kotani, A. R. Yavari, M. W. Chen, Science 341(6144),376-379
- Standard realization of crystal lattice via harmonic maps, M. Kotani and T. Sunada, Trans. Amer. Math. Soc. 353(2000), 1-20