



## Motoko Kotani

Executive Vice President  
for International  
Research Strategy

### ■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

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

### ■Research

Geometry, Discrete Geometric Analysis  
Mathematics for materials

#### ■Professional Affiliations

- International Science Council Governing Board Officer(President-elect)
- Science and Technology Co-Advisor to the Minister for Foreign Affairs
- 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

#### ■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