French-Japanese Laboratory of Mathematics and its Interactions

Established on September 1, 2023, the French Japanese Laboratory of Mathematics and its Interactions (FJ-LMI) is a new center for cutting-edge mathematical research, based on the agreement between the French National Center for Scientific Research (CNRS), Europe's largest basic research institution, and the Graduate School of Mathematical Sciences of The University of Tokyo. This initiative aims to promote research cooperation and higher education in Mathematics between France and Japan.

The inaugural conference was held on April 4-5, 2024, which featured congratulatory speeches from President Fujii, Professor Dhersin, Deputy Director of CNRS Mathematics, and the Scientific Councilor from the French Embassy. Eight renowned researchers including Jean-Pierre Bourguignon, Étienne Ghys, and Claire Voisin, delivered lectures on various active topics in pure and applied Mathematics in the main lecture hall of our building.

For structuring international partnership CNRS offers tools such as International Emerging Actions (IEA), International Research Networks (IRN), International Research Projects (IRP), and International Research Laboratories (IRL). IRLs help structure highly localized international research collaboration. The Graduate School of Mathematical Sciences has established the French-Japanese Mathematics Laboratory (FJ-LMI) as an International Research Laboratory, marking the fifth such a structure at The University of Tokyo and the first IRL in Mathematics in Japan.

Over nearly a century, Japan and France have mutually inspired and contributed to each other's mathematical advancements. FJ-LMI aims to support and systemize the connections developed among individual mathematicians, starting with following four key research areas:

- 1. Number Theory and Algebraic Geometry;
- 2. Lie Group Theory, Geometric Group Theory, and Representation Theory;
- 3. Partial Differential Equations and Inverse Problems;
- 4. Applications of Mathematics to Biology and Life Sciences.

The Laboratory will facilitate long-term stays for French researchers in Tokyo. Its overarching goal is to deepen research cooperation and to foster young researchers in a wide range of mathematical fields between France and Japan. In addition to advancing mathematical research, this hub aims to create networks among researchers laying the foundation for international success.







April 2024 opening conference Professor E. Ghys, far right is President T. Fujii, and Professor C. Voisin.