

**【Name of Institution】**

Faculty of Science, Hokkaido University

**【Project Title】**

The international sending-elevating project for young mathematicians based on singularity, topology and mathematical analysis: Hokudai model

**【Project Outline】**

The sending-elevating project for young mathematicians is performed based on the characteristic of mathematics, and also on singularity, topology, and mathematical analysis which are universal notions/methods and play important roles to advance various sciences. We develop a human network in Asia, Europe, and America for the development of mathematical researches and for the education of young mathematicians starting from individual international exchanges and joint researches by small groups. We construct a framework to develop the network in a systematic manner, relating the ITP project to the total plan of Hokkaido University's international strategy, the future plan of our department, and all projects such as scientific research grants. Therefore, the purpose of our ITP project is to establish a standard model of international sending-elevating system for young researchers, which we call "**Hokudai model**" with pride.

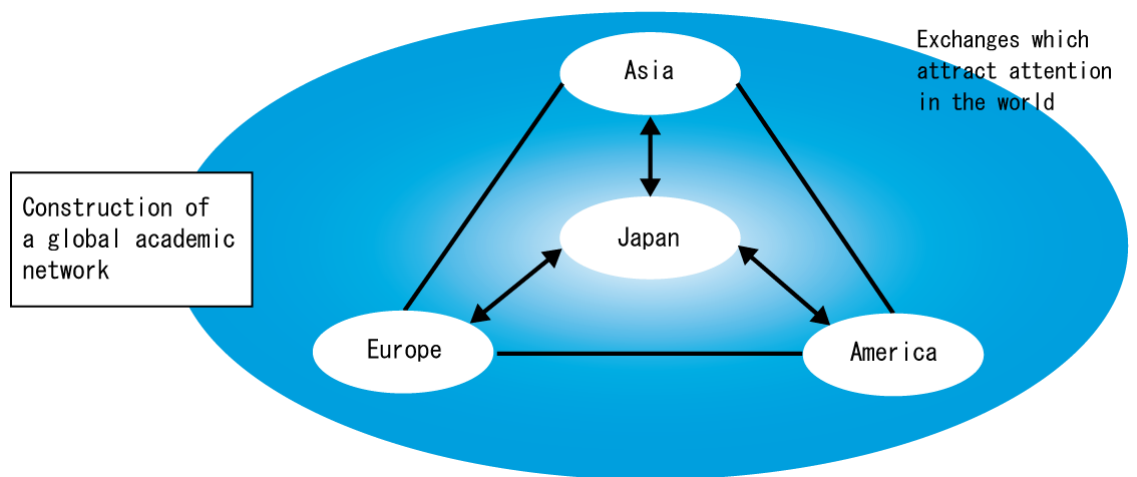
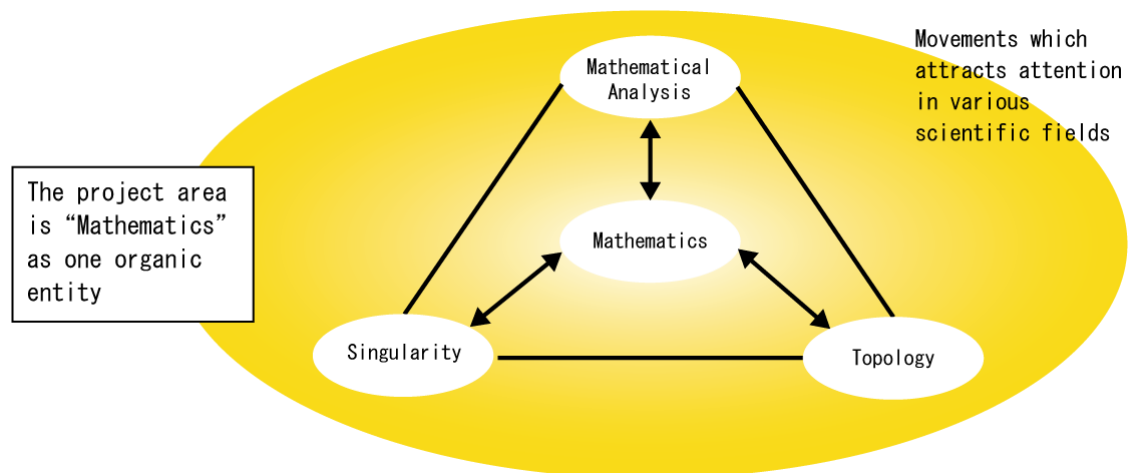
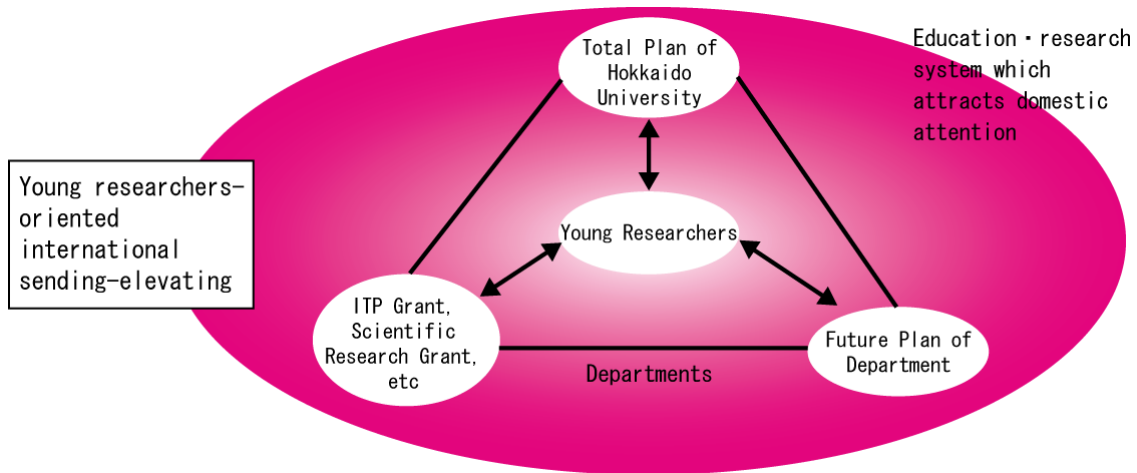
Aims of sending young researchers are as follows: education by project-type joint researches with researchers at a partner institute, education by obtaining credits during a long-term stay at a partner institute, education by attending a special semester or a special year at a partner institute, etc.

We select "honorable researchers" from all young mathematicians belonging to our department by a strict screening to be sent to partner institutes. Then, giving priority to the motivation and the present research theme of each honorable researcher, the best partner and the best length for him/her to stay are determined flexibly. In addition, we construct a cyclic and sustainable system of sending-elevating by letting the honorable researchers participate in the management of the project partly. Meanwhile, we make a system to examine the results properly, encourage young mathematicians, and exhibit the results obtained by the project. Through this project, we support young researchers to have chances to obtain many viewpoints, to have research friends in abroad, and to become international researchers of high grade. As byproducts of this project, we construct a system to raise international leaders and activate both the researches/educations in the department and the international exchanges in Hokkaido University.

**【Overseas Partner Institutions】**

Dept. of Mathematics, Fudan University (Shanghai, China)  
Dept. of Mathematical Sciences, Seoul National University (Seoul, Korea)  
School of Mathematics, Korea Institute for Advanced Study (Seoul, Korea)  
Dept. of Mathematics, National Taiwan University (Taipei, Taiwan)  
Dept. of Mathematics, National University of Singapore (Singapore, Singapore)  
Division of Mathematical Sciences, Nanyang Technological University (Singapore, Singapore)  
College of Mathematics, University of Valencia (Valencia, Spain)  
Fourier Institute, University of Grenoble I (Grenoble, France)  
Centre of Mathematics and Informatics, University of Provence (Marseille, France)  
Dept. of Mathematics and Informatics, University of Trieste (Trieste, Italia)  
Institute of Mathematics, Polish Academy of Sciences (Warszawa, Poland)  
Dept. of Mathematical Sciences, University of Durham (Durham, UK)  
Dept. of Mathematical Sciences, University of Liverpool (Liverpool, UK)  
Institute of Mathematics and Computer Sciences, University of São Paulo (São Carlos, Brazil)  
Institute for Pure and Applied Mathematics, University of California, Los Angeles (Los Angeles, USA)  
Mathematical Sciences Research Institute, University of California, Berkeley (Berkeley, USA)  
Dept. of Mathematics, University of Michigan (Ann Arbor, USA)  
Courant Institute of Mathematical Sciences, New York University (New York, USA)  
Dept. of Mathematics, Pennsylvania State University (State Collage, Pennsylvania, USA)

**【Scheme】**



**【Contact】**

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