

Purport of the conference:

“Ever-expanding Mathematics --- the expectations of the society”

Mathematics is the most universal language in science, and is standing out like a beacon in this modern, highly functionalized society. Actually, mathematics plays a role of compass in the advanced research in the areas such as life-science, economics, physics, to name a few, and, in almost all fields of high technology, by which the modern society is driven, like information security, medical technology, development and control of high-performance devices, scheduling mechanism in transportation and distribution, finance and insurance, resources search, hazard assessment, entertainment etc., mathematics lies in the very center of the essential part of those technologies. Also to be pointed out is that, to cope with global and societal challenges such as the problem of environment and energy, the method of mathematical science rooted in the ideas of mathematics is inevitable because those problems often involve multitudes of factors and complicated dimensions.

Moreover, it has been gradually recognized that there are still many new mathematical problems in various matters in real society or in various branches of sciences. However, in Japan, quite a few researchers in society conducting math-related researches point out that not many opportunities to cooperate with mathematicians are available, or feel the lack of researchers with mathematical background in their research group.

In these circumstances, it is definitely important to build a mechanism or system that promote the coalition and cooperation between mathematicians and other scientific and industrial circle, together with strengthening the research in mathematics and mathematical sciences in our country and pushing forward the active challenge of mathematicians to the diverse mathematical problems in real society, and thereby making possible to fill the gap between the academic community of mathematics and mathematical sciences and the society.

The symposium is held as part of the investigation project commissioned by MEXT “Investigation and estimation of promotion of cooperation of mathematics and mathematical science with other fields”, with the intention of contributing the examination of the post-third governmental science & technology master plan. During the two-day symposium, through the lectures and discussions by those who are actively involved in the promotion of cooperation of mathematics and mathematical science with other fields, as well as reports of and specific proposals based upon our investigations and estimations, we are aiming at making our policy proposal all the more feasible and effective.

Date: February 22nd and 23rd, 2010

Place: Graduate School of Mathematical Sciences, the University of Tokyo

Organizers: Kyushu University, the University of Tokyo, the Mathematical Society of Japan, Nippon Steel Corporation

Supported by: The Japan Society for Industrial and Applied Mathematics, the Japanese Federation of Statistical Science Associations