

THE PAST, PRESENT AND FUTURE OF JAMI: ISSUES FOR DISCUSSION

Report of the JAMI Committee (V. Shokurov, J. Spruck, S. Zucker [chair])

In 1988, the Mathematics Department established a small institute, the Japan-U.S. Mathematics Institute (JAMI), in which Japan played a special central role. This was due largely to ties with mathematicians at Hopkins and the nature of the mathematical community in Japan. Former JHU president Steven Muller ultimately agreed to fund the institute after a strong effort by department members convinced him of its viability. To demonstrate the strength of the proposed institute, JAMI composed a three-year prospectus giving a detailed description of the programs and listing some eminent Japanese mathematicians who agreed to participate. We add that in March 2006, JAMI received a high prize from the Mathematical Society of Japan.

This is the eighteenth year of operation for JAMI. A complete list of its programs may be viewed at its web site www.mathematics.jhu.edu/new/jami/archives.htm. However, the 16th program in 2004, “Asymptotic and effective results in complex geometry” (with Shiffman and Zelditch as organizers) was clearly not a “traditional” JAMI program (see www.mat.jhu.edu/~sz/JAMIguide-2.pdf for a description of a traditional program), whatever was intended initially. Although both Hopkins organizers that year had been involved with organizing traditional JAMI programs in earlier years, the nature of their program reflected more recent interests that were not well represented in Japan, so did not attract a Japanese co-organizer. Also, the 19th (2007) program, to be run by Sogge, will also be non-traditional, without a Japanese co-organizer and with lesser though significant Japanese participation. We will propose soon that such a program, if it meets certain conditions, be considered an alternative JAMI program.

This gives a preview of some of the problems facing JAMI in the future. When JAMI was founded, virtually every member of the Department could benefit from its programs within the constraints of JAMI as postulated. However, an increasing number of our colleagues now find it too confining to organize a good program under those conditions. Moreover, some of our senior faculty believe it will become burdensome to have to run programs every year. Since these programs should highlight significant developments in the area of the program, it is counterproductive to do it in any area too often. One point has emerged from within and without: an institute that has no preferred role for Japanese mathematicians cannot be called “JAMI”.

It occurred to us that we should define the term *program*. We mean having a sufficiently large concentration of visitors in a clearly designated area of mathematics, and an international conference in that area in the Spring. It has become rather customary to have the conference during the Spring Break (when getting rooms is not a problem), and to have the visitors only in the Spring as well, though these patterns have been broken, even recently.

We propose that the following be considered JAMI programs:

1. A traditional program, with Japanese organizer(s), who select [most of] the Japanese visitors (most significantly, the junior visitors) and apply for bulk funding from JSPS for the visitors. In general, JSPS funding substantially increases the total pool of money available for the program.
2. A nontraditional program without a Japanese co-organizer but with significant Japanese presence among the visitors to the program. By that, we propose that there be four Japanese one-month visitors, counted with multiplicity up to two; thus the minimum would be two 2-month visitors from Japan. Since the premise here makes it unclear whether the Hopkins organizer can find visitors from Japan, he or she should seek the help of the Director if necessary. There should be in addition a serious attempt to invite Japanese speakers for the conference.

How then can JAMI evolve to better serve departmental interests? We have already seen (in the 16th program) an example of a successful “non-JAMI” program. Shall we consider, outside the banner of JAMI, programs that are not tied to Japan? We must also consider the eventual possibility (probability) that in some years there will be no one interested in organizing, thus no program at all. If that is the case, what should we do instead? One possibility is to have a visitors program with all senior faculty permitted to suggest visitors. The possibility of inviting several researchers in one area for a type of mini-program is allowed. Another idea is to try to create a Johns Hopkins Mathematics Institute (JHMI) of which JAMI would be a major component along with a strong visitors program (which could include the Kempf visitors program).

The above suggestions may provoke some controversy. Please keep in mind that they are meant to initiate a serious collective discussion on how we can spend our resources to strengthen our department and improve our mathematical lives.