The HUJI-SDU Program on Mathematics

The Hebrew University of Jerusalem (HUJI) and Shandong University (SDU) have decided a program of collaboration for at least three academic years starting from 2009. The program focuses on the two themes:

(1) Automorphic forms and representation theory;
(2) Ergodic theory, dynamic systems, and Lie groups.

S. Gelbart and E. Lapid will visit Jinan the next semester, and each of them will give a condensed mini-course on theme (1). Descriptions of these courses are attached.

Scholars and graduate students are welcome to the courses. Because of the size of class, only a limited number, say 10, of students outside Jinan can be accommodated. Scholars and students may live on the campus, and financial support is provided for the students. For registration, please write to Professor Hualin Huang at hualin@sdu.edu.cn by February 10. Please note that students must ask their advisor to register for them.

Course Descriptions

(1) Erez Lapid, February 16, - March 16, 2009

I plan to do spectral analysis for Gamma \ H. A basic reference is Iwaniec book “Spectral methods of automorphic forms”, AMS.

(2) Steve Gelbart, March 1 - April 1, 2009

I shall introduce the Langlands picture of automorphic forms and L-functions by carefully surveying the known theory for GL(1). This means starting with Riemann's zeta-function, and progressing through Hecke's generaliztions of it in 1916. After doing this, I shall introduce the adeles and ideles of a number field. This will make it easier to discuss Artin's L-seies attached to a Galois group, his beautiful statement of abelian class field theory, and (his student) Tate's redoing of Riemann-Hecke L-functions in 1950. These results ultimately form part of the motivation of the general Langlands program.