CE BIAN, University of Calgary Introduction to the methods of computing GL(n) automorphic forms

During the last few years, mathimaticians have got some result in computational aspect of Maass cusp forms. Since after H.M.Stark and D.A.Hejhal gave a nice algorithem for computing $GL(2) = SL(2,\mathbb{Z}) \setminus SL(2,\mathbb{R}) / OL(2,\mathbb{R})$ form, a series of achievement was showed in Americian Institute of Mathematics (AIM) in 2008. In the workshop, three groups, who worked on computing GL(3) forms, showed and confirmed there result with each other. I will introduce the methods they used together with the result we got at present. Also there are some "potential" method, which may give us other ways to compute those forms specially in higher rank.