MATHEMATICS COLLOQUIUM

S.K. Ray from Indian Statistical Institute, Kolkata, will speak on

'Fourier restriction theorem on Riemannian symmetric spaces of noncompact type'

at 04.00 p.m. on Thursday, 19 April, 2012, in the **Lecture Room (AG-69)** of the Institute.

D.B. Sawant

Abstract

Restriction conjecture on $\mathbb{R}^n$ asks for the validity of an inequality of the form $\|\hat{f} \mid S^{n-1}\|_{L^q(S^{n-1})} \leq c_{p,q}\|f\|_{L^p(\mathbb{R}^n)}$ for all Schwartz functions on $\mathbb{R}^n$. Here $\hat{f}$ denotes the Euclidean Fourier transform of f and $c_{p,q} > 0$ is a constant independent of f. After introducing the problem on $\mathbb{R}^n$ we will talk about an analogue of the above inequality on Riemannian symmetric spaces of noncompact type having rank one. We will show that problem is related to the estimates of the matrix entries of the spherical principal series representation and hence to the Kunze Stein phenomena.