Area Seminar

Title	CMB TE polarization power spectrum estimation with non-circular beam
Date and Time	12/01/2012 16:00:00
Speaker	Dr. Subharthi Ray Astrophysics and Cosmology Research Unit, Univ. of KwaZulu-Natal, Durban, South Africa
Area	Theoretical Physics
Venue	Room No. 469
Abstract	Modern CMB experiments are poised for higher multipole survey of the sky and accurate measurement of the angular power spectrum Cl has been a key concern for analysing the data from these experiments. The Maximum Likelihood (ML) estimation technique is optimal but is plagued by the huge computational time and resources when approaching the higher multipoles. So, many alternative methods has been adopted of which the suboptimal but computationally fast pseudo-Cl estimator has been a very feasible approach. A semi analytical work for the pseudo-Cl method taking into account the systematic effect due to the non-circularity of the experimental beam response and has been done previously for the temperature-temperature (TT) co-relation. In the present study, we have extended this technique to the estimation of the cross power spectrum of the temperature and `E' mode (TE) polarized signal, with future plans to extend them to the EE and BB signals also.