Area Seminar

Title	Stable dipoles and quadrupoles in photorefractive media
Date and Time	24/05/2012 16:00:00
Speaker	Pravin Vaity Physical Research Laboratory, Ahmedabad
Area	Theoretical Physics
Venue	Room No. 469
Abstract	Dipole and quadrupole vortex beams are unstable in free space propagation. The vortices in these beams annihilate each other and form crescent kind structure during propagation. However, for propagation through a photorefractive medium they form a stable structure. On the other hand dark rings of LG beam, eigensolution of wave equation in free space, break to form quadrupole vortex in the photorefractive medium. Our results show that dipole and quadrupole vortices may be the solution of nonlinear paraxial wave equation with photorefractive nonlinearity.