List of Publications

1. Nonlinear dynamics of intense EM pulses in plasma.
   **R. Mahajan**, T. S. Gill, and R. Kaur

2. Relativistic and ponderomotive effects on evolution of laser beam in a non-uniform plasma channel.
   T. S. Gill, **R. Mahajan**, and R. Kaur
   Laser and Particle Beams 28, 11-20 (2010).

3. Relativistic and ponderomotive effects on evolution of dark hollow Gaussian electromagnetic beams in a plasma.
   T. S. Gill, **R. Mahajan**, and R. Kaur
   Laser and Particle Beams 28, 521-529 (2010).

   T. S. Gill, **R. Mahajan**, and R. Kaur

   T. S. Gill, **R. Mahajan**, R. Kaur, and S. Gupta
   Laser and Particle Beams 30, 509-516 (2012).

6. Interaction between parallel Gaussian electromagnetic beams in a plasma with weakly relativistic-ponderomotive regime.
   **R. Mahajan**, T. S. Gill, and R. Kaur

Other related research work which is not the part of present thesis:

   R. Kaur, T. S. Gill and **R. Mahajan**

   R. Kaur, T. S. Gill and R. Mahajan

3. Propagation of high power electromagnetic beam in relativistic magnetoplasma: Higher order paraxial ray theory.
   T. S. Gill, R. Kaur and R. Mahajan
   Physics of Plasmas 17, 093101 (1-6) (2010).

   T. S. Gill, R. Kaur and R. Mahajan

   T. S. Gill, R. Kaur and R. Mahajan
   Contributions to Plasma Physics (Communicated) (2012).

6. Interaction between parallel Gaussian electromagnetic beams in relativistic magnetoplasma.
   R. Kaur, T. S. Gill, and R. Mahajan