

In this seminar, the spin transfer torque (STT) and the exchange coupling of the Josephson junctions containing the interesting cases of diffusive/ballistic-triplet/singlet ferromagnetic superconductor (FS) materials will be discussed. Also, some interesting results for the behavior of the STT in the ballistic Josephson junctions containing the triplet ferromagnetic superconductor reservoirs will be presented. According to the findings, the favorable equilibrium configuration concerning the least exchange coupling occurs in the relative exchange field direction different from 0 or π . To the best of our knowledge it is for the first time that the occurrence of the in-plane STT is reported.