Novel multiferroic thin film memory devices

Electric-field tunable spin valves are being investigated

Exchange bias at ferromagnet/multiferroic interfaces has been studied for various thin film and bulk multiferroics including BiFeO$_3$, TbMnO$_3$, LuMnO$_3$, and Cr$_2$O$_3$. Tunable spin valve structures have been made. Magnetoresistance devices using BiFeO$_3$ as the exchange biasing layer have been demonstrated.