Magnetic skyrmion is a topologically stable particle-like object, which appears as nanometer-scale vortex-like spin texture in a chiral-lattice magnet \[1\]. In metallic materials (MnSi, FeGe, Fe\textsubscript{1-x}Co\textsubscript{x}Si etc), electrons moving through skyrmion spin texture gain a nontrivial quantum Berry phase, which provides topological force to the underlying spin texture and enables the current-induced manipulation of magnetic skyrmion \[2\]. Such electric controllability, in addition to the particle-like nature, is a promising advantage for potential spintronic device applications. Recently, we newly discovered that skyrmions appear also in an insulating chiral-lattice magnet Cu2OSeO\textsubscript{3} \[3\]. We find that the skyrmions in insulator can magnetically induce electric polarization through the relativistic spin-orbit interaction, which implies possible manipulation of the skyrmion by external electric field without loss of joule heating. The present finding of multiferroic skyrmion may pave a new route toward the engineering of novel magnetoelectric devices with high energy efficiency. In this talk, our recent attempts to drive skyrmions by external field are also introduced.


**Keywords:** skyrmion, multiferroics, magnetoelectric effect