Physics of chiral magnet
~Universal asymmetry to diverse functions~
Jun Kishine (The Open University of Japan)

The concept of chirality plays an essential role in symmetry properties of nature at all length scales from elementary particles to biological systems. In this talk, I demonstrate an emergence of non-linear pattern formation of spins in crystals belonging to a chiral space group. This fine, stable, robust, and tunable structure can be utilized to construct nano-scaled magnetic structures over macroscopic scales which lead to diverse functions as a spintronic device. I will also discuss experimental methods to detect non-linear dynamics related to this structure.

Refs.