Aspects of multiferroic behavior In spin-chirality- and exchange-striction-driven compounds

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The field of multiferroics, the cross-coupled ferroelectric and magnetic materials, has exploded and then matured within the last few years. It came to be realized that roughly two sorts of mechanisms dominate the multiferroic behavior in materials: either spin-chirality-driven or exchange-striction-driven. In this talk, I describe some key physics underlying both mechanisms and discuss their manifestations in a number of compounds.