

In frustrated magnets, competition between spin interactions prevents them from finding a unique classical ground state. In exceptional circumstances, this can lead to a what is known as a quantum spin liquid : a purely quantum mechanical, long-range entangled ground state. Quantum spin liquids come in several varieties and give rise to emergent excitations with fractional statistics. I will present an overview of the field of frustrated magnetism and the search for experimental examples of quantum spin liquids, along with other intriguing phenomena that have been observed along the way. I will, in particular, focus on the my group's experimental research using magnetic resonance techniques (NMR and μ SR) to study such systems.