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Title: **Magnetic order and dynamics in a quantum gas**

Many of the elements produced as ultracold quantum gases have a non-zero ground-state spin. For Bose gases in which this spin degree of freedom is not constrained artificially, the phenomena of superfluidity and magnetic ordering are expected to occur simultaneously in the regime of quantum degeneracy. I will describe central concepts for understanding the equilibrium and non-equilibrium physics of such spinor Bose gases, along with experimental works by the Berkeley group and others exploring such concepts.