Origin of classicality in quantum spin systems

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Is quantum physics complete? In other words, does it describe _all_ objects in our Universe? If it is universally applicable why the most of the objects in the world around us behave classically? This is the key issue of hot discussions continuing already for almost a century, including the famous discussions of Bohr and Einstein. A naive solution explaining classicality of macroobjects by their small de Broglie wavelength has obvious shortcomings related to Schroedinger cat paradox or properties of systems with chaotic motion. The most popular view is related to decoherence program suggested long ago by Zeh, Zurek and other physicists and connecting classicality of initially quantum systems with their openness. I will discuss briefly the main idea of this approach and related concepts such as pointer states and quantum Darwinism, as well as connection to the measurement problem. To avoid unnecessary broadness and to keep closer connection with the physical reality (whatever it means) I will illustrate these concepts by examples of quantum magnets. I will especially discuss, first, the relation between quantum singlet state of Heisenberg antiferromagnet and classical Neel state and, second, emergence of topological protection for quantum skyrmion state.