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Title: Exotic phases of strongly correlated systems at intermediate coupling

Most of what is known about strongly correlated systems is based on approximate schemes in the weak or strong coupling limits. In this talk, I will discuss two frustrated models where new properties emerge at intermediate coupling: the half-filled Hubbard model on the triangular lattice, and a Shastry-Sutherland spin tube in a field. In the first case, an insulating spin liquid replaces the three-sublattice ordered state of the strong coupling limit close to the metal-insulator transition whose characterization requires to go far beyond second order perturbation theory. In the second case, DMRG results reveal the presence of a strange plateau for intermediate inter-dimer coupling which is best described as a Wigner crystal of bound states.