Extremal Aspects of Hypergraph Hamiltonicity

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I will discuss a couple of extremal problems related to the existence of Hamiltonian cycles of various kinds in uniform hypergraphs. One of them asks for the minimum number of edges in a maximally non-Hamiltonian hypergraph, or the, so called, Hamiltonian saturation number (this is joint work with Andrzej Żak). Another, Dirac-type problem, is to determine the minimum vertex degree guaranteeing a Hamiltonian cycle (joint work with Vojtech Rödl, Mathias Schacht and Endre Szemerédi).