MAXIMIZERS FOR THE STRICHARTZ NORM FOR SMALL SOLUTIONS OF THE MASS-CRITICAL NONLINEAR SCHRÖDINGER EQUATION.

Consider the mass-critical nonlinear Schrödinger equation in space dimension N. By the Strichartz inequalities for the corresponding linear equation, it is known that small, finite-mass solutions belong to a global L^p space in the time and space variables, where $p = 2 + 4/N$. In this talk I will give an estimate of the maximum of the L^p norm taken over all solutions of small fixed mass. I will also investigate the existence and uniqueness of the maximizers. This is based on a joint work with Frank Merle and Svetlana Roudenko.