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**Thomas Dyuckaerts, Frank Merle and Svetlana Roudenko\***, School of Math and Stat Sciences, Arizona State University, Tempe, AZ 85287-1804. *Maximizers for the Strichartz norm for small solutions of mass-critical semilinear Schrödinger equations.*

We consider the mass-critical Schrödinger equation in space dimensions 1 and 2 (both focusing and defocusing cases). By Strichartz estimates for the linear problem, solutions with small  $L^2$  norm are globally defined and belong to an  $L^p$  (Strichartz) space (here,  $p = 6$  in 1d and  $p = 4$  in 2d). We show that for small  $L^2$  norm the maximum of the (Strichartz)  $L^p$ -norm is attained, and give a precise estimate of this maximum as the mass tends to 0. In particular, in the focusing case, it is greater than the corresponding maximum for the linear equation, which was computed by Foschi and Hundertmark-Zharnitsky, and it is smaller in the defocusing case. (Received February 23, 2010)