1099-42-64Arpad Benyi*, Department of Mathematics, 516 High St, Bellingham, WA 98225, and Tadahiro
Oh and Oana Pocovnicu. Probabilistic Strichartz estimates and applications.

We introduce a randomization of a function on \mathbb{R}^d that is naturally associated to the Wiener decomposition and, intrinsically, to the modulation spaces. This Wiener randomization leads to an improvement of the Strichartz estimates for the Schrödinger equation, which, in turn, yields almost sure well-posedness results for the nonlinear Schrödinger equation (NLS). As an example, we indicate why the energy-critical cubic NLS on \mathbb{R}^4 is almost surely locally well-posed with respect to randomized initial data below the energy space. (Received January 23, 2014)