

We consider a family of quasiperiodic solutions of the nonlinear Schrodinger equation on the 2-torus, namely the family of finite-gap solutions (tori). These solutions are inherited by the 2D equation from its completely integrable 1D counterpart (NLS on the circle) by considering solutions that only depend on one variable. Despite being linearly stable, we prove that these tori (under some appropriate genericness conditions) are nonlinearly unstable in the following strong sense: there exists solutions that start very close to those tori in certain Sobolev spaces, but eventually become larger than any given factor at later times. This is the first instance where (unstable) long-time nonlinear dynamics near (linearly stable) quasiperiodic tori is studied and constructed.