1151-81-197 **Jacob Shapiro*** (shapiro@math.columbia.edu), Department of Mathematics, Columbia University, Room 509, MC 4406, New York, NY 10027, and **Michael I Weinstein**. *Topological Equivalence of Continuum Models with Their Discrete Tight-Binding Limits in the IQHE.*

We study the tight-binding regime of a non-interacting electron in a two-dimensional crystal subject to a perpendicular constant magnetic field, and prove that the Fermi projection of the scaled continuum Hamiltonian converges in norm to that of a discrete tight-binding model as long as the Fermi energy lies within a spectral gap. A corollary of this is that the topological invariants of the respective systems are equal. The edge system is also studied and an analogous equivalence is proven between continuum and tight-binding reduction as well. (Received August 18, 2019)