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**Jacob Shapiro\*** ([shapiro@math.columbia.edu](mailto:shapiro@math.columbia.edu)), New York, NY 10027, and **Michael I Weinstein**, New York, NY 10027. *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 September 15, 2019)