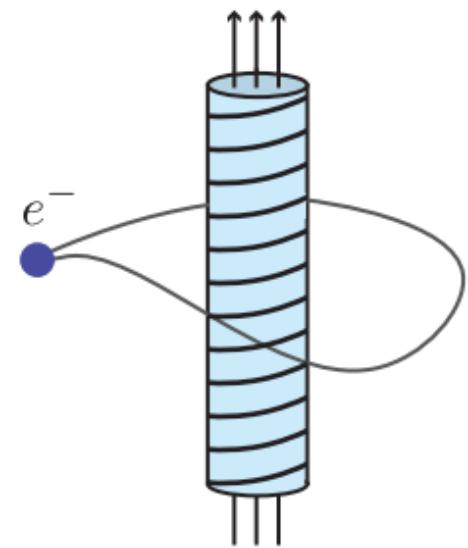


Euler characteristic



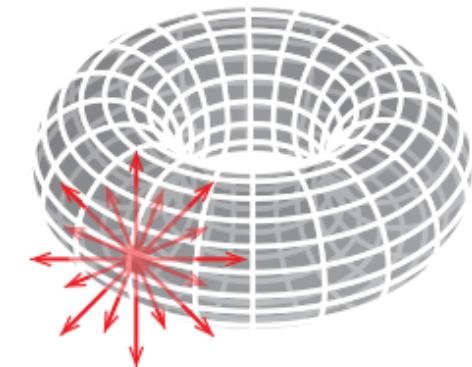
$$\chi = \frac{1}{2\pi} \int_{\mathcal{M}} K dS$$

Magnetic flux



$$n = \frac{2e}{h} \int_{\mathcal{M}} \mathbf{B} \cdot d\mathbf{S}$$

First Chern number



$$C = \frac{1}{2\pi} \int_{\mathcal{M}} \boldsymbol{\Omega} \cdot d\mathbf{S}$$