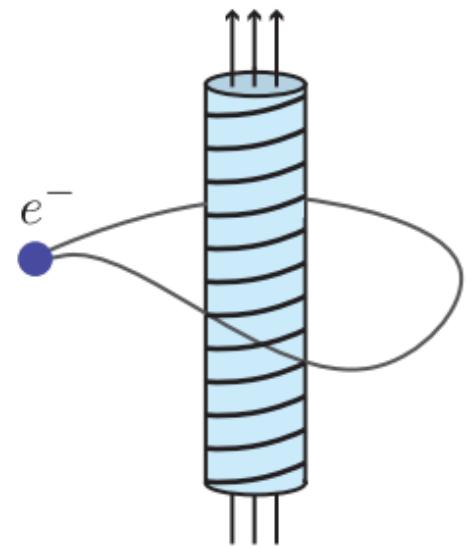


Euler characteristic



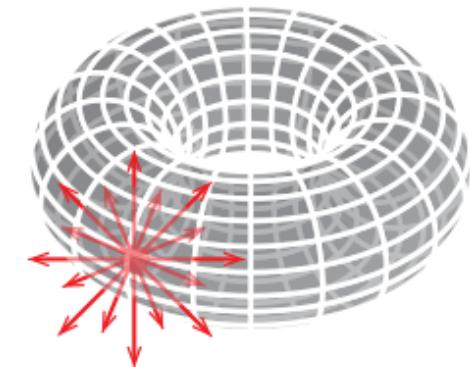
$$\chi = \frac{1}{2\pi} \int_{\mathcal{M}} K dS$$

Magnetic flux



$$\Phi = \int_{\mathcal{S}} \mathbf{B} \cdot d\mathbf{S}$$

First Chern number



$$C_n = \frac{1}{2\pi} \int_{BZ} \boldsymbol{\Omega}_n \cdot d\mathbf{k}$$