1 Floquet systems

My notes on the topic

Formula for n_{edge} for number of edge modes for a given floquet unitary [1]

$$n_{edge} = W[U]_{U(\vec{\mathbf{k}},T)=1} = \int \frac{1}{8\pi^2} dk_x dk_y dt \ Tr\big[U_t^{-1} \partial_t U_t \big[U_t^{-1} \partial_{k_x} U_t, U_t^{-1} \partial_{k_y} U_t\big]\big]$$

Useful reference: homotopy groups used in physics ../sample.bib

References

[1] Mark S. Rudner et al. Anomalous edge states and the bulk-edge correspondence for periodically-driven two dimensional systems. 2013. arXiv: 1212.3324 [cond-mat.mes-hall].