We discuss the notion of gap distributions of various lists of numbers in [0, 1], in particular focusing on those which are associated to certain low-dimensional dynamical systems.

We show how to explicitly compute some examples using techniques of homogeneous dynamics. This works gives some possible notions of `randomness' of special trajectories of billiards in polygons, and is based partly on joint works with J. Chaika, J. Chaika and S. Lelievre, and with Y. Cheung.

Refreshments served at 3:30 p.m.
Hacker Reading Lounge - Neill 216