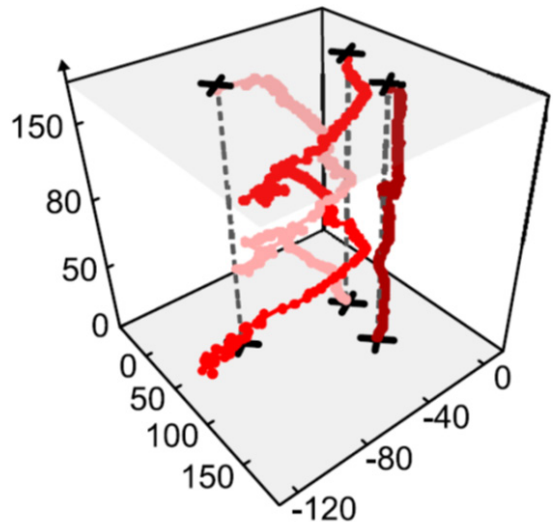
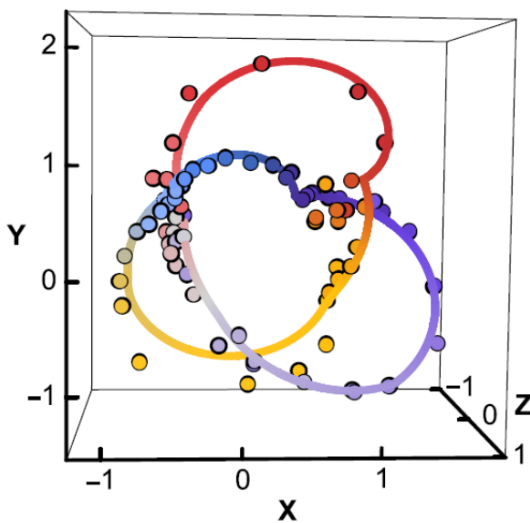




Jack Harris
Yale University

April 29, 2024 at 3:30 pm in SPL 57

Measuring the knots and braids of non-Hermitian oscillators



It may seem unlikely that rich mathematical structures remain to be uncovered in classical harmonic oscillators. Nevertheless, oscillators that combine non-reciprocity and loss have provided a number of surprises in recent years. I will describe a collaborative effort (between my group and Nick Read's group) that has led to a concise understanding of why these systems naturally exhibit braids, knots, and other topological structures. I will also present measurements of these structures (using a cavity optomechanical system), and will describe their potential application in various settings. This will be a pedagogical introduction to all of these topics, with lots of pictures and videos!

Connection info: <https://yale.zoom.us/j/93660628074>; Password: 595687

Physics Club is a weekly colloquium of general interest to the Department of Physics, Applied Physics, Astronomy, and Mathematics. The series is aimed at graduate students, postdoctoral researchers, research staff and faculty. The name dates to the late 1890s, the era of J Willard Gibbs, who influenced the intellectual life at Yale through a number of "graduate clubs." Physics Club is sponsored by the Yale Physics Department and Yale University

