Abstract
The random walk loop soup is a collection of loops after a loop-erasure procedure. Its scaling limit, known as the Brownian loop soup, is a conformally invariant process that plays an important role in the study of two-dimensional lattice systems. These loop soups connect deeply with various models, such as GFF, SLE, loop-erased random walks, uniform spanning trees, etc. The basic properties of the loop soup and its connection to other models will be discussed in the talk.