Kemeny’s constant is an interesting and useful quantifier of how well-connected the states of a Markov chain are. By considering the random walk on a simple, undirected graph, we can regard the value of Kemeny's constant for this Markov chain as a graph parameter with a concrete interpretation in terms of the expected length of a random trip in the graph, thus giving yet another measure of ‘connectedness’ in a graph. This talk will provide an introduction to Markov chains, an overview of the history of Kemeny’s constant, and a survey of recent results for random walks on graphs, along with some open problems. 

This talk is suitable for undergraduate students.