

On the spectra of Fibonacci-like operators and modeling invasions by fungal pathogens

Ivan Slapničar, TU Berlin, on sabbatical from Univ. of Split

January 12, 2010

Abstract

The first part of talk deals with the spectra of the infinite dimensional generalized Fibonacci and Fibonacci-like operators in l_1 . The operators are related to Fibonacci sequence.

In the second part of the talk the Leslie matrix model for the invasion of potato late blight (oomycete *Phytophthora infestans*) is discussed. The spectral analysis from the first part of the talk yields a prediction of the maximum speed of the spread of invasion.