Applied Mathematics Seminar

UCC
University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

Johan Dubbeldam

Delft University of Technology

Using weighted multilayer networks to determine the stability of ecosystems

The stability of ecological systems has received much attention lately. The mathematical modeling of such systems is complex, due to the many different types of interactions, such as competition, mutualism, predator-prey. In this talk I will discuss a multilayer description of an ecosystem consisting of different species that have mutualistic and both inter- and intraspecific competition. A connection with the seminal work of May in 1970s about ecological networks with random interactions will be made.

The research that will be presented was done in collaboration with Yamir Moreno from Zaragoza University, Xiangrong Wang from Shenzhen University and Thomas Peron from the University of Sao Paulo.

Thursday, 06.02.2020 · 12:00 · WGB G02
University College Cork · Western Road · Cork · T12 XF62