



Seminar of the Work Group
Nonlinear Partial Differential Equations
SS 23

July 18th, 2023, 14:00 - 15:30
Seminar room: SR 3.068

From Competing Species to Nodal Solutions of the Yamabe Problem

Alberto Saldana, National Autonomous University of Mexico

Abstract

What is the relationship between several populations fighting for resources and the Poincaré conjecture? These two concepts seem to have nothing in common, but in this talk we will establish a close link by relating three mathematical objects: the Yamabe equation, competitive systems (that model the interaction between two species), and optimal partitions of the sphere. This is joint work with Mónica Clapp and Andrzej Szulkin.