Partial Differential Equations Seminar

Title Blow-up vs boundedness in a repulsive chemotaxis-consumption system

Speaker 안재욱 교수

Affiliation 동국대학교 수학과

Date August 30th , 14:00 ~ 15:00

Location 과학관 262

Abstract

In this talk, I will present a recent result on blow-up vs boundedness in 2D repulsive chemotaxis-consumption systems under no-flux/Dirichlet boundary conditions. The main result shows that whenever the diffusion mechanism of the system has a certain damping effect, for each smooth radial data one can find the large Dirichlet data that leads to a finite time blow-up. On the other hand, in presence of the standard diffusion mechanism, all solutions emanating from smooth radial data always remain globally bounded. This talk is based on a joint work with Michael Winkler (Paderborn University)

연세대학교 수학계산학부

주최: 4단계 BK21 수리과학 및 계산 교육연구단