第19回 非線形科学セミナー

日時：2009年 9月16日（水） 16時00分より

場所：理学部２号館４０３号室

講演者：Helmut Brand氏(bayreuth大学)

題目

Partial annihilation of colliding pulses due to noise

概要

Noise can induce the partial annihilation of colliding dissipative solitons.
Partial annihilation of two counter-propagating dissipative solitons, with only one pulse surviving the collision, has been widely observed in different experimental contexts, over a large range of parameters, from hydrodynamic to chemical reactions. However a generic picture accounting for partial annihilation is missing.
Based on our results for coupled complex cubic-quintic Ginzburg Landau equations as well as for the FitzHugh-Nagumo equation we conjecture that noise induces partial annihilation of colliding dissipative solitons in many systems.