ANALYSIS/PDE SEMINAR SERIES

TOPIC: Semi-Trivial Ground States of Two-Component Attractive Bose-Einstein Condensates

SPEAKER: Yujin Guo, Wuhan Institute of Physics and Mathematics, Chinese Academy of Sciences

TIME: 3:00pm-4:00pm, Thursday, May 17, 2018

VENUE: Room 264, Geography Building, Zhongbei Campus

HOST: Xingbin Pan, East China Normal University

ABSTRACT OF THE TALK

This talk is focused on ground states of two-component attractive Bose-Einstein condensates (BEC) with trapping potentials in $\mathbb{R}^2$. We first discuss the complete classification on the existence and nonexistence of ground states. The uniqueness and semi-trivial behavior of ground states are then introduced. This is joint work with S. Li, J. C. Wei and X.Y. Zeng.

BIOGRAPHY

Dr. Yujin Guo is now a Full Professor at Wuhan Institute of Physics and Mathematics (WIPM), Chinese Academy of Sciences. He obtained his Ph.D. in Mathematics in 2007 from the University of British Columbia in Canada. He worked as a Postdoc from 2007 to 2011 at the University of Minnesota in Minneapolis of USA, after which he has worked as an LTA Assistant Professor for one year at Concordia University in Montreal. His research fields are focused on the analysis and applications of nonlinear Partial Differential Equations (PDEs). So far he has published a series of papers on the PDE analysis of Electro-static MEMS, and on the functional analysis of attractive Bose-Einstein Condensates (BEC) as well.