Serial Reports

Hardy-Littlewood-Sobolev, Stein-Weiss, and applications to Choquard problems

Vicentiu Radulescu, University of Craiova (Romania)
AGH University of Science and Technology, Krakow (Poland)

Beijing time: 2022/01/10 19:30
Tencent Meeting ID: 637-651-793
https://meeting.tencent.com/dm/i0P26cjWlGgX

Abstract: This talk is devoted to the mathematical analysis of some classes of nonlocal Choquard problems on the basis of a new Stein-Weiss inequality for variable exponents. This inequality is discussed in relationship with related singular differential inequalities, including the classical Hardy-Littlewood-Sobolev and Caffarelli-Kohn-Nirenberg inequalities. We are mainly interested in the existence of solutions in suitable function spaces and under various natural hypotheses, including the case of high or low perturbations. Some open problems and perspectives will be presented in the final part of this talk. The lecture is based on recent joint works with Xianhua Tang and Youpei Zhang (Proc. AMS 2021 and DCDS-A 2022).

Prof. Vicentiu Radulescu is a Full Professor at University of Craiova (Romania) and a Professor Fellow a the Institute of Mathematics of the Romanian Academy, Bucharest. He is an internationally renowned expert in the field of nonlinear analysis, and he received both his PhD and Habilitation at the Sorbonne University in Paris under the coordination of Professor Haim Brezis. Prof. Vicentiu Radulescu published more than 420 papers and he is a Highly Cited Researcher in 2014, 2019, 2020 and 2021. Also, he is the collaborator of the best publishers in the world who wrote 10 monographs. He is the founder and a co-editor-in-chief of the journal Advances in Nonlinear Analysis, which ranked 4/330 in Mathematics with Impact Factor = 4.279. Prof. Vicentiu Radulescu is also a founding member and executive director of the China-Romania Research Center in Applied Mathematics.

Chair: Prof. Jianshe Yu

Guangzhou Center for Applied Mathematics, Guangzhou University