

Giulio Ciraolo

Title: Classification results for critical p -Laplace equations

Abstract: We consider critical p -Laplace type equations arising from Sobolev type inequalities. Nonnegative solutions of these equations are unique up to scaling and translation: this property can also be interpreted as a rigidity result; classification results are well-known and have been obtained by using the method of moving planes. In this talk, we will discuss two approaches which do not make use of the method of moving planes and allow us to give a complete classification of the solutions in an anisotropic setting as well as to a suitable generalization of the problem in convex cones. An application to Caffarelli-Kohn-Nirenberg (CKN) inequalities will be also discussed.