Title: The concentration compactness principle for p-Fractional Laplacian in unbounded domains and its applications.

Abstract: The famous concentration-compactness principle (CCP) due to Lions [1] in 80's is the key to solve problems with lack of compactness in Sobolev embbedings. This principle was originally formulated for critical problems in bounded domain and later extended to deal with critical problem in unbounded domains by Chabrowski [2], is of prime importance since it describes the concentration by a weighted sum of Dirac masses and the loss of mass by measures "supported at infinity". In this talk we show an extension of the refined concentration-compactness at infinity for a nonlocal operator (Fractional Laplacian) and its applications to prove existence of solutions for critical equations in unbounded domains. Joint work Julián Fernández Bonder (UBA-IMAS) and Nicolas Saintier (UBA-IMAS).

REFERENCES

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