

TEMPLE UNIVERSITY

Department of Mathematics

Analysis Seminar

Room 617 Wachman Hall

Monday, April 29th, 2024, 2:30 p.m.

*Stein-Weiss type inequality in L^1 norm for
vector fields and applications*

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Abstract: In this talk, we investigate the limit case $p = 1$ of the Stein–Weiss inequality for the Riesz potential. Our main result is a characterization of this inequality for a special class of vector fields associated to cocanceling operators. As applications, we recovered some classical div-curl inequalities and obtained new solvability results for equations associated to canceling and elliptic differential operators on measures. This is joint work with Pablo De Nápoli (Universidad de Buenos Aires - Argentina) and Victor Biliatto (UFSCar - Brazil).