**Department of Mathematics** 

University of Houston

## **Analysis Seminar**

## FRIDAY, October 5, 2018

## 13:00-14:00 - Room 646 PGH

**Speaker:** Florent Baudier (Texas A&M University)

**Title:** Nonlinear rigidity of classes of Banach spaces

**Abstract:** A class \*C\* of Banach spaces is said to be rigid in a certain nonlinear category (e.g. isometric, Lipschitz, coarse Lipschitz, coarse...), if we can assert that a Banach space \*X\* is a member of \*C\* whenever it nonlinearly embeds into a member of \*C\*. We will first recall classical rigidity results in the isometric and Lipschitz category and more recent coarse Lipschitz rigidity results. Then we will discuss a recent joint work with P. Motakis, G. Lancien, and Th. Schlumprecht were it is shown that the class of reflexive asymptotic-\*c0\* Banach spaces is coarsely rigid. The rigidity result is obtained by metrically characterizing the class under scrutiny in terms of a concentration inequality for Lipschitz maps on the Hamming graphs.