



## Differential Equations and Applied Math Seminar

Dr. Ray Treinen, Texas State University

11am-12pm September 22nd, 2017

333 Derrick Hall

**Title:**  $\Gamma$ -convergence topics II

**Abstract:** We continue our study of integral problems on Lebesgue spaces. In particular, we are looking at the behavior of a sequence highly oscillatory functions that minimize a double well type functional. This sequence does not have a limit in the usual sense, but we are able to extract a subsequence that weakly (or weakly\*) converges to the average value of the oscillating function.

With this example in hand, we will continue on to a discussion of weak compactness and then relaxation of  $L^p$  spaces by the use of the convex and lower semicontinuous envelope.

We are mostly following the book by Andrea Braides.

Interested faculty and graduate students are encouraged to attend.