Pure Mathematics Seminar

Transfinite range of a linear bounded operator

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Let X be a Banach space and $T \in B(X)$ a bounded linear operator. We denote $T^{\infty}(X) = \cap_{n\in\mathbb{N}} T^n(X)$ hyper-range of T, and $\mathcal{N}^{\infty}(T) = \cup_{n\in\mathbb{N}} T^{-n}(0)$ hyper-kernel of T.

In this talk we will introduce the *transfinite range* and *transfinite kernel* of T and we give some properties of them. At the end of the talk, using those terms, we generalize Fredholm theory of bounded operators in the case of infinite dimensional range and kernel.

Date: **Friday, February 19, 2016**
Time: **2:00 pm**
Place: **Edinburg:** MAGC 1.302, **Brownsville:** LHSB 1.314

The talk will delivered live at the *Edinburg* campus and will be streamed to the Brownsville campus

Coffee and cookies will be served.

For further information or for special accommodations, please contact Dr. Sergey Grigorian via email at [sergey.grigorian@utrgv.edu], or Dr. Alexey Garber at [alexey.garber@utrgv.edu]