

# Pure Mathematics Seminar

Locally homology negligible sets in the Hilbert cube

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A closed subset for the Hilbert cube  $I^\infty$  is locally homology negligible in  $I^\infty$  if for every open set  $U$  in  $I^\infty$  and for every  $n$  the relative homology group  $H_n(U, U \setminus A)$  vanishes. According to an old result of N. Kroonenberg any finite-dimensional closed subset of  $I^\infty$  is locally homology negligible in  $I^\infty$ . A compact space is called strongly infinite-dimensional if it admits an essential map onto the Hilbert cube, and weakly infinite-dimensional if it is not strongly infinite-dimensional. Recently, Kroonenberg's result was generalized to some class of weakly infinite-dimensional subsets of  $I^\infty$ . We show that there are also strongly infinite-dimensional compacta which are locally homology negligible in  $I^\infty$ .

Date: **Friday, February 26, 2016**

Time: **3:00 pm**

Place: **Edinburg:** MAGC 1.302, **Brownsville:** UBLB 2.206

**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]