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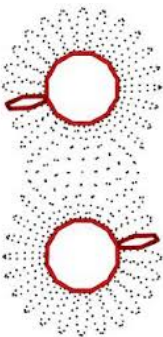
Texas State Topology Seminar

Thursday, 2018, November 2, 2:00-3:15 p.m., in DERR

227 Speaker: William Grilliette

Topic: *Matricial Banach Spaces*

ABSTRACT

The creation of a vector space from a set is a standard construction in abstract algebra, and a standard example of a left adjoint functor with a universal property analogous to the free group. However, can one adapt this construction to create analytic objects? A matrix-normed space is a generalization of a subspace of a C*-algebra, where a vector space is equipped with a net of norms related by matrix multiplication. Sadly, a mere set is insufficient to capture this net, so sets will be equipped with an "array-weight", which will allow fine control on the resulting family of norms. In so doing, some peculiarities arise, such as a one-dimensional space that requires two generators to create its matrix-norm