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Alexander Rosenberg* (rosenber@math.ksu.edu), Kansas State University, Department of Mathematics, Cardwell Hall, Manhattan, KS 66506. *Geometry of 'spaces' represented by triangulated categories.*

The purpose of the talk is to sketch the first notions and facts of (the form of) derived noncommutative geometry, in which 'spaces' are represented by svelte Karoubian triangulated categories (we call them *t*-'spaces') and morphisms by isomorphism classes of *triangle* functors. We start with a triangulated version of descent proving that every continuous morphism of *t*-'spaces' is the composition of a localization and a comonadic morphism and finish with a geometric realization of a triangulated Karoubian category as a stack of local triangulated categories over its spectrum. Its *geometric center* is a locally ringed topological space. The functorialities (covariant and contravariant) of this geometric realization have direct relation with representation theory and K-theory.

References

- [R1] A.L. Rosenberg, Topics in Noncommutative Algebraic Geometry, Homological Algebra and K-Theory, preprint MPIM, 2008(57), 105 pp.
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