ODTU-Bilkent Algebraic Geometry

"Symplectic Structures on Derived Schemes"

By

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Abstract: This is an overview on the basic aspects of so-called shifted symplectic geometry on (affine) derived K-schemes with K being a field of characteristic 0. In this talk, we always study objects with higher structures in a functorial perspective, and we shall focus on local models for those structures. To this end, in the first part of the talk, the basics of commutative differential graded K-algebras (cdgas) and their cotangent complexes will be introduced. Using particular cdgas as local models, we shall introduce the notion of a (closed) p-form of degree k on an affine derived K-scheme with the concept of a non-degeneracy. As a particular case, we shall eventually define a k-shifted symplectic structure ω on an affine derived K-scheme, and outline the construction of a Darboux-like local model for ω together with some examples. These will be the main topics of interest in the second part of the talk.

Date: 8 May 2020, Friday
Time: 15:40 +

To request the event link, please send a message to sertoz@bilkent.edu.tr