

Department of Mathematics, BGU

Algebraic Geometry and Number Theory

On *Wednesday, May ,25 2016*

At *15:10 – 16:30*

In *Math 101-*

Oren Ben Bassat (Hafia)

will talk about

Multiple Lagrangian Intersections

Abstract: Joyce and others have used shifted symplectic geometry to define Donaldson–Thomas Invariants. This kind of geometry naturally appears on derived moduli stacks of perfect complexes on Calabi-Yau varieties. One wonderful feature of shifted symplectic geometry (developed by Pantev, Toën, Vaquié and Vezzosi) is that fibre products (i.e. intersections) of Lagrangians automatically carry Lagrangian structures. Using a strange property of triple intersections from arXiv:1309.0596, this extra structure can be organized into a \mathcal{D} -category. We discuss a partial linearization using Joyce’s perverse sheaves. I will also talk about the relationship of this \mathcal{D} -category with TQFTs, algebraic versions of the Fukaya categories and categories of Lagrangians. This is joint work with Lino Amorim and available at <http://arxiv.org/abs/1601.01536>¹

¹<http://arxiv.org/abs/1601.01536>