

1070-18-34

**Vasily A. Dolgushev\*** (vald@temple.edu). *Formality theorem for Hochschild cochains via transfer.*

I will talk about a 2-colored operad  $G^+$  which, on the one hand, extends the operad  $G$  of homotopy Gerstenhaber algebras and, on the other hand, extends the 2-colored operad of open-closed homotopy algebras (OCHA). I will show that Tamarkin's  $G$ -structure on the Hochschild cochain complex  $C^*(A)$  of an  $A_\infty$  algebra  $A$  extends naturally to a  $G^+$  structure on the pair  $(C^*(A), A)$ . I will show that a formality quasi-isomorphism for the Hochschild cochains of the polynomial algebra can be obtained via transfer of this  $G^+$  structure to the cohomology of the pair  $(C^*(A), A)$ . Finally, I will discuss a link between the operad  $G^+$  and Voronov's Swiss Cheese operad. (Received December 20, 2010)