

LOG MOTIVES, COBORDISMS AND THE MOTIVIC \mathbb{E}_2 -OPERAD
DMITRY VAINTROB

I will discuss some recent progress on motives of log varieties by Doosung Park, and a reinterpretation/extension of his result. Using these ideas, one can construct an operad of Voevodsky motives over the base \mathbb{Z} whose Betti realization is the operad of framed little disks (equivalent to the cobordism infinity-operad of surfaces of genus zero with boundary), and certain slightly weaker motivic objects associated to the cobordism operad of surfaces of arbitrary genus, as well as to the \mathbb{E}_2 -operad. If time permits, I will discuss additional structures these motivic operads possess because of the logarithmic structure.