

# Integration along the fiber for gebras over dioperads

*jeudi 24 octobre 2024 09:00 (55 minutes)*

Given a monoidal adjunction and a certain orientation datum on the right adjoint  $F$ , I will explain how to transport gebras over dioperads along  $F$ , via endowing this functor with a shifted Frobenius monoidal structure. This procedure generalizes so-called integration along the fiber, which is for instance the case when  $F$  is the pushforward of a projection  $X \times M \rightarrow X$ , with  $M$  a closed oriented manifold.

Applied to the dioperad of shifted Lie bialgebras, the above construction can be regarded as a toy model of a conjectural AKSZ construction for shifted Poisson target (in the spirit of Pantev-Toën-Vaquié-Vezzosi's theorem on shifted symplectic structures). Time permitting, I shall discuss this application and justify the previous claim.

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