1093-57-106 **Theo Johnson-Freyd*** (theojf@math.northwestern.edu), Department of Mathematics, Northwestern University, 2033 Sheridan Road, Evanston, IL 60208. *Poisson AKSZ theories and quantization.*

I will describe a Poisson generalization of the AKSZ construction of topological field theories. This version of "classical" AKSZ theory exists for all oriented spacetimes, and resides in the world of dioperads and "quasilocal" factorization algebras. The quantization problem is generically obstructed; as I will discuss, "quantum" AKSZ theories are from the world of properads. The quantization problem is closely related to the formality problem for the E_n operad. It is also closely related to the question of finding a geometrically-meaningful properadic homotopy-Frobenius structure at the chain level, lifting the Frobenius-algebra structure on the homology of spacetime. (Received August 05, 2013)