

## **Richard Thomas : (-2)-shifted symplectic virtual cycles**

*vendredi 16 juin 2023 12:00 (1 heure)*

Behrend-Fantechi and Li-Tian showed how to produce a virtual cycle from a 2-term obstruction theory (or, in higher language, a quasi-smooth derived scheme). I will describe joint work with Jeongseok Oh that produces a virtual cycle from a 3-term symmetric obstruction theory (or, in higher language, a (-2)-shifted symplectic derived scheme). There is also a localisation formula, a K-theoretic refinement, a virtual GRR formula, etc. Earlier Borisov-Joyce used real derived differential geometry to define a real virtual homology class. When their virtual dimension is even we show our class reproduces theirs; when it is odd we show their class is torsion.