ID de Contribution: **25**   Type: **Non spécifié**

Seminar : Lothar Göttsche (Trieste) :: (Refined) Verlinde and Segre formulas for Hilbert schemes of points.

mardi 6 juin 2023 11:00 (1 heure)

This is joint work with Anton Mellit. Segre and Verlinde numbers of Hilbert schemes of points have been studied for a long time. The Segre numbers are evaluations of top Chern and Segre classes of so-called tautological bundles on Hilbert schemes of points. The Verlinde numbers are the holomorphic Euler characteristics of line bundles on these Hilbert schemes. We give the generating functions for the Segre and Verlinde numbers of Hilbert schemes of points. The formula is proven for surfaces with $K_S^2=0$, and conjectured in general. Without restriction on K_S^2 we prove the conjectured Verlinde-Segre correspondence relating Segre and Verlinde numbers of Hilbert schemes. Finally we find a generating function for finer invariants, which specialize to both the Segre and Verlinde numbers, giving some kind of explanation of the Verlinde-Segre correspondence.