

The Hilbert scheme of points and its motive

Thursday, 9 October 2025 11:00 (1 hour)

The Hilbert scheme of points on a quasi-projective variety is a classical object in algebraic geometry. However, its geometry is nowadays still not completely accessible. On the other hand, the motive of a variety X is an invariant attached to X carrying a lot of information about its geometry, and it is considered as a universal Euler characteristic. In a joint project with Monavari, Moschetti and Ricolfi we give general formulas to compute the motive of the Hilbert scheme of points, provided the knowledge of a finite amount of data (that we give explicitly in some cases). In my seminar I will present our formulas and I will show many applications.

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