MacDonald formula for singular curves

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We generalize the classical MacDonald formula for smooth curves to reduced curves with planar singularities. More precisely, we show that the cohomologies of the Hilbert schemes of points on all the subcurves are encoded in the cohomologies of the fine compactified Jacobians of the connected subcurves, via the perverse Leray filtration.

This is a joint work with Luca Migliorini and Vivek Schende.