

**Some big and stable tautological bundles on the Hilbert schemes of points of
a $K3$ surface
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Abstract:

I investigate meaningful families of vector bundles on a very general polarized $K3$ surface, such as Ulrich bundles, and the tautologically associated families of vector bundles on the Hilbert schemes of points of the surface, proving global generation, bigness and stability of such bundles, using their geometric properties and a careful analysis of their Segre classes.

This is a joint work with Gilberto Bini and Flaminio Flamini.