

Constructing algebraic cycles on products of K3 surfaces via hyperholomorphic bundles

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Let Z be a rational cohomology class of Hodge type $(2, 2)$ on the product $X \times Y$ of two K3 surfaces. If Z induces an isometry of the second rational cohomologies of X and Y , then Z is algebraic, by a recent result of Buskin, extending work of Mukai. We will report on Buskin's result and on related work in progress.

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