

CYCLES ON CLASS VII SURFACES AND COMPACT SUBSPACES OF INSTANT ON MODULI SPACES

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We explain our program—based on Donaldson theory—to prove existence of curves on class VII surfaces, and the first results obtained using this program. We explain a duality principle: If the moduli space $M(K, 0)$ of polystable bundles with determinant isomorphic to K and $c_2 = 0$ on a class VII surface X has no compact subspace satisfying certain properties, then X admits a cycle of curves.