
Embeddings of homology spheres in sums of complex projective planes

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Abstract

We will discuss smooth embeddings of homology spheres in sums of complex projective planes from both constructive and obstructive perspectives. We will present certain constructions for Brieskorn spheres that give rise to new exotic 4-manifolds with uncountably many smooth structures. Our proofs are based on Kirby calculus and gauge/Floer theoretical invariants.

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