

Constructions of holomorphic discs in complex manifolds

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Abstract: I will present a method of constructing proper holomorphic maps from the unit disc in \mathbb{C} into complex manifolds. For the local step an approximate solutions to a certain Riemann-Hilbert problem is used and local corrections are glued using holomorphic sprays. Recently, the same method has also been used in constructions of conformal minimal discs in \mathbb{R}^n .