
Alessia Mandini, PUC-Rio

Symplectic embeddings and infinite staircases – Part I

McDuff and Schlenk studied an embedding capacity function, which describes when a 4-dimensional ellipsoid can symplectically embed into a 4-ball. The graph of this function includes an infinite staircase related to the odd index Fibonacci numbers. Infinite staircases have been shown to exist also in the graphs of the embedding capacity functions when the target manifold is a polydisk or the ellipsoid $E(2,3)$.

This talk describes joint work with Cristofaro-Gardiner, Holm, and Pires, where we find new examples of symplectic toric 4-manifolds for which the graph of the embedding capacity function has an infinite staircase.