

1173-53-121

**Morgan Weiler\***, morgan.weiler@cornell.edu. *Fractals, ECH capacities, and symplectic embeddings of four-dimensional ellipsoids into Hirzebruch surfaces.*

In 2012, McDuff and Schlenk proved that the optimal symplectic embeddings of four-dimensional ellipsoids into complex projective space are governed by an "infinite staircase" of pseudoholomorphic curve obstructions. Recently, Cristofaro-Gardiner–Holm–Mandini–Pires conjectured that there is only a finite list of integrally-weighted blowups of complex projective space whose ellipsoid embeddings share this same property. We explain work towards this conjecture, which can be reinterpreted in the language of ECH capacities, and relies on a Cantor set structure of the obstructions as the sizes of the blowups vary. This is joint work with Dusa McDuff and Nicole Magill. (Received September 18, 2021)