

A SIEGEL DISK IN A JULIA SET

FABRIZIO BIANCHI, UNIVERSITÉ PAUL SABATIER

We give an example of an endomorphism of $\mathbb{P}^2(\mathbb{C})$ with an invariant holomorphic disk on which the iteration is conjugate to an irrational rotation and which is contained in the small Julia set, i.e., the support of the equilibrium measure. The interest of this example is in particular related to the problem of proving the equivalence between continuous and holomorphic motion for the Julia set for families of such endomorphisms. The example is constructed within the class of the so-called skew-products and, in particular, uses basic facts from the one-dimensional theory.