

1145-14-1348 **Yuwei Zhu*** (yuwei_zhu@brown.edu), Math department, 151 Thayer Street, Brown University, Providence, RI 029012. *Shioda's fourfold and CM Mumford's fourfold.*

It was proved by Shioda in 1981 that the Jacobian of the curve $y^2 = x^9 - 1$ has extra Hodge cycles of codimension 2 that is not generated by divisors. Shioda noted that this phenomenon is similar to the family of abelian fourfold constructed by Mumford in 1969, which naturally leads to the question of whether one can realize Shioda's Jacobian as a special case of Mumford's construction. In this talk we will use the Mumford-Tate group to show that Shioda's fourfold cannot be realized as a special Mumford's fourfold, but it is derived equivalent to one. (Received September 21, 2018)