

# **SUPERELLIPTIC CURVES WITH COMPLEX MULTIPLICATION**

T. SHASKA

ABSTRACT. In this talk we study which algebraic curves over  $\mathbb{C}$ , or equivalently compact Riemann surfaces, have Jacobian with complex multiplication. The question originates from F. Ort and has been studied by many authors lately. We focus on superelliptic curves and determine conditions on their automorphism group such that their Jacobians have complex multiplication.