

A variation on the solvable case of the Dedekind conjecture

Joshua M. Lansky¹ and Kevin M. Wilson²

¹*American University, Washington, DC 20016 USA*

²*University of Maryland, College Park, MD 20742 USA*

Communicated by: V. Kumar Murty

Abstract. Let G be the Galois group of a solvable Galois extension K/F of number fields. In this note, we demonstrate the holomorphy of certain Artin L -functions attached to K/F , generalizing results of M. R. Murty and A. Raghuram [1]. We also give a bound (generalizing one in [1]) on the orders of certain Artin L -functions at an arbitrary point in the complex plane by the order of a corresponding quotient of Dedekind zeta functions. We deduce some corollaries on the possible orders of zeros of such quotients.

1991 Mathematics Subject Classification: Primary 11M06; Secondary 11M20