

Patrick Lacasse and T. J. Ransford, **A Bloch theorem for algebroid multifunctions**,
Proc. Roy. Irish Acad. 100A (2000), 219–225.

Abstract

We prove an analogue of Bloch's theorem for multifunctions of the form

$$F(z) = \{w \in \mathbf{C} : w^n + a_1(z)w^{n-1} + \cdots + a_{n-1}(z)w + a_n(z) = 0\},$$

where a_1, \dots, a_n are holomorphic functions. We give an example to show that the corresponding 'Landau constant' is no longer a constant, but a function of the diameter of $F(0)$.