

On local linearization of holomorphic functions

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Sammanfattning: We consider the problem of local linearization of power series defined over complete valued fields. The complex field case has been studied since the end of the nineteenth century, and renders a delicate number theoretical problem of small divisors related to diophantine approximation. Since a work of Herman and Yoccoz in 1981, there has been an increasing interest in generalizations to other valued fields like p -adic fields and various function fields. We present some new results in this domain of research. In particular, for fields of prime characteristic, the problem leads to a combinatorial problem of seemingly great complexity, albeit of another nature than in the complex field case.