

A REMARK ON FIRST INTEGRALS OF VECTOR FIELDS

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Abstract: We provide examples of vector fields on $(\mathbb{C}^3, 0)$ admitting a formal first integral but no holomorphic first integral. These examples are related to a question raised by D. Cerveau and motivated by the celebrated theorems of Malgrange and Mattei–Moussu.

2020 Mathematics Subject Classification: Primary: 32S65; Secondary: 32M25.

Key words: holomorphic vector field, first integral, formal power series, Stokes phenomena.