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ENVELOPPE GALOISIENNE D'UNE APPLICATION RATIONNELLE DE $\mathbb{P}^1$

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Abstract

Galoisian envelope of a rational map. In 2001, B. Malgrange defines the $\mathcal{D}$-envelope or galoisian envelope of an analytical dynamical system. Roughly speaking, this is the algebraic hull of the dynamical system. In this short article, the $\mathcal{D}$-envelope of a rational map $R\colon \mathbb{P}^1 \to \mathbb{P}^1$ is computed. The rational maps characterised by a finitness property of their $\mathcal{D}$-envelope appear to be the integrable ones.

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