

Dynamical Degrees of Birational transformations of projective surfaces

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Abstract:

The dynamical degree $\lambda(f)$ of a birational transformation f measures the exponential growth rate of the degree of the formulae that define the n -th iterate of f . I will describe the study of the set of all dynamical degrees of all birational transformations of projective surfaces, and the relationship between the value of $\lambda(f)$ and the structure of the conjugacy class of f . For instance, the set of all dynamical degrees of birational transformations of the complex projective plane is a closed and well ordered set of algebraic numbers. Joint work with Serge Cantat.