

# Questions about the holomorphic group action dynamics on a natural family of affine cubic surfaces

lundi 27 mai 2024 16:30 (1 heure)

I will describe the dynamics by the group of holomorphic automorphisms of the affine cubic surfaces

$S_{A,B,C,D} = \{(x, y, z) \in \mathbb{C}^3 : x^2 + y^2 + z^2 + xyz = Ax + By + Cz + D\}$ , where  $A, B, C$ , and  $D$  are complex parameters. This group action is studied by Loray, Cantat, Tan – Wong – Zhang, Maloni – Palesi – Tan, and many others.

In this talk I will describe my recent joint work with Julio Rebelo and I will focus on several interesting open questions that arose while preparing our work “Dynamics of groups of automorphisms of character varieties and Fatou/Julia decomposition for Painlevé 6” and during informal discussions with many people.

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