On the group of special/volume preserving space Cremona transformations

John Alexander Cruz Morales

National University of Colombia, Colombia

In this talk, I will discuss some open questions related to the group of special/volume preserving birational automorphisms of the n-dimensional projective space over a field k that preserve the standard torus invariant volume form. In particular, when n=3, I will discuss a conjecture (due to Anne-Sophie Kaloghiros) stating that this gruop is generated by mutations. Relations with cluster algebras and mirror symmetry will be mentioned. This is a joint work in progress with Eduardo Alves da Silva.

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