

Quotients of groups of birational transformations

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Abstract: We will look at how to construct non-trivial group homomorphisms from a Cremona group to a finite group. After seeing that such a homomorphism can only exist for Cremona groups in higher dimension or for the plane Cremona group over a non-closed field, we will attack the construction in the latter case, which is a construction by Julia Schneider. I will introduce so-called Sarkisov links and we will study relations between them. This will bring us to the construction of the group homomorphisms. At the end of the lecture, I will give an overview of the construction in higher dimensions.