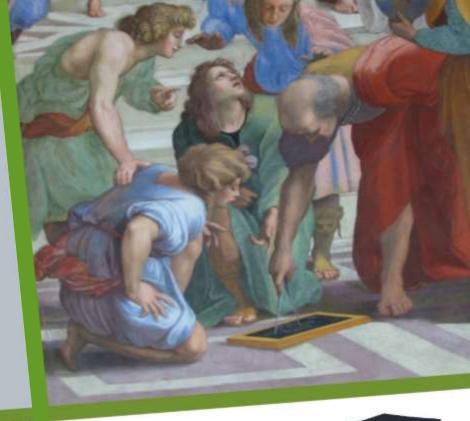


DOTORATO





CYCLE 35th ORAL DEFENCE OF THE PHD THESIS

Monday 20 March 2023 – at 2.30 pm

Department of Mathematics Seminar Room 1 The event will take place in presence and online through the ZOOM platform. To get the access codes please contact the secretary office

Alberto Franceschini

PhD Student in Mathematics

C*-actions on rational homogeneous varieties and the associated birational maps

Abstract:

Given a birational map among projective varieties, it is known that there exists a variety Z with a onedimensional torus action such that the birational map is induced from two geometric quotients of Z. We proceed in the opposite direction: given a smooth projective variety X with a one-dimensional torus action, one can define a birational map associated to the action and study the properties of the map via the geometry of X. Rational homogeneous varieties admit natural torus actions, so they are a good class of examples to test the general theory. In the thesis, we obtain and discuss some results about the birational maps associated to some one-dimensional torus actions on rational homogeneous varieties.

Supervisor: Luis Eduardo Solà Conde (University of Trento)

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