

Rationality of finite groups: Groups with quadratic field of values

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The main topic of this seminar is families of groups that have a characterization of their integral central units inside the rational group algebra. Using representation theory it is possible to consider groups as acting over vector spaces in a natural way, relating the irreducible actions to the field generated by the trace of the representation. Those fields give us a lot of information about the group itself. In this seminar we will focus on groups with field of values that are quadratic extensions of the rationals and we will define tools that allow us to detect how far the group is from a *rational* action.

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