

# SEMINÁRIO DE ÁLGEBRA

## On state-closed representation and virtual endomorphisms

Alex Carrazedo Dantas

UnB

03/05/18

14:30 Horas

Auditório do MAT

**Abstract.** In this presentation, we study constructions of state-closed groups not necessarily transitive. These constructions are made by a state-closed representation in terms of virtual endomorphisms. We show that a group  $G$  is isomorphic to a state-closed group if and only if there is this faithful state-closed representation. In addition, we show that a free abelian group of infinity rank is state-closed of degree 3. We also study the question if  $C \wr C$  is a state-closed group.

## References

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- [4] Dantas, A and Said Sidki, On state-closed representations of restricted wreath product of groups of type  $G_{p,d} = C_p \wr C^d$ , *J. Algebra*.
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