# On the Orbit Relation for the Natural Action of Abelian Automata Groups

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**Abstract**

write this. "we solve this problem on a dense set of cantor space"

## 1 Background

Automata Groups give a way of combinatorially encoding extremely rich group theoretic structure. They take the form of subgroups of the group of automorphisms of Cantor Space ?

Application in DST, GGT, and CS

## 2 The Identifying Function

Define automata and their groups

## 3 Solving the Orbit Problem

Give an example computatio

## 4 Conclusion

Introduce notation $p^{-1} \cdot \mathcal{G}$ and assert N+S

## Acknowledgements