



IEEE IROS 2020 Workshop on *Animal-Robot Interaction*

Title

Biomimetic fish robots as a tool in animal behavior research

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Abstract

Biomimetic robots are an extremely effective tool for studying animal social behavior, as they can help elucidate the important characteristics necessary to engage and interact with their live animal counterparts. I will outline how differentially controlled biomimetic robots can be used to answer questions on how animals differ in social responsiveness, what characteristics define leadership and how individual differences in movement speed affect collective behavior. Further I will show some of the prerequisites that robots need to serve as a tool for the study of animal social behavior and how biomimetic robots help to reduce numbers of live animals used during experiments.