Multiobjective Reinforcement Learning (MORL) on Tetherball BioRob
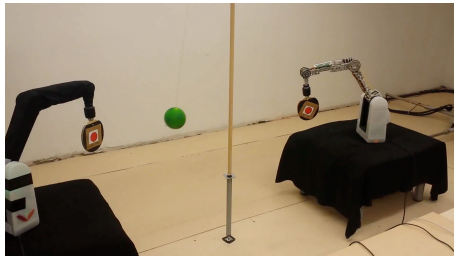
CONFLICTING OBJECTIVES, e.g.:

► *Safety*: smooth and low torque movements,

► *Performance*: quickly send the ball to the opponent.

MORL: find the set of policies representing the best compromises among the objectives.

MOTIVATION: novel promising MORL policy gradient algorithms have been proposed but not tested on real robots yet.

GOALS: study and application of such algorithms, find their limitations and propose a way to overcome them.