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Research Topic
Robotics

Research Problem
How can you get robots to coordinate?

Problem Statement
Given a robotic soccer environment, coordinate a group of independent, autonomous robots so that they share information without spending all their time communicating.

Problem Description
Dr. Veloso works primarily on planning and cooperation among robots. Robot soccer is a convenient, well-defined problem in this area. One project deals with a fully observed environment under central control. Dr. Veloso is currently working on applying the lessons learned in that project to group of independent, autonomous agents, where each has only partial information about the task.

Computer Science Perspective
First, robots are cool. Also, though, coordination between independent autonomous agents is an open problem with implications for everything from distributed artificial intelligence and sensor networks to human computer interactions.

Actively Involved Discipline:
A discipline is an actively involved discipline if there is an actively involved individual who belongs to that discipline.

An actively involved individual is an individual who has received credit in any related publications or presentations or who is mentioned by the principal investigators, either through verbal or written communications, online or offline, digital or analog.

Disciplines actively involved
Robotics
Artificial Intelligence

Description of Disciplines Involved
Psychology
Sociology
Cognitive Science
Electrical engineering

References

Presenter web page:
http://www.cs.cmu.edu/%7Emmv/
CORAL research group:
http://www.cs.cmu.edu/~coral/main/
Robot soccer at cmu:
http://www.cs.cmu.edu/~robosoccer/main/

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