

Paper Submission

Authors are encouraged to submit high-quality, original work that has neither appeared in, nor is under consideration by, other journals.

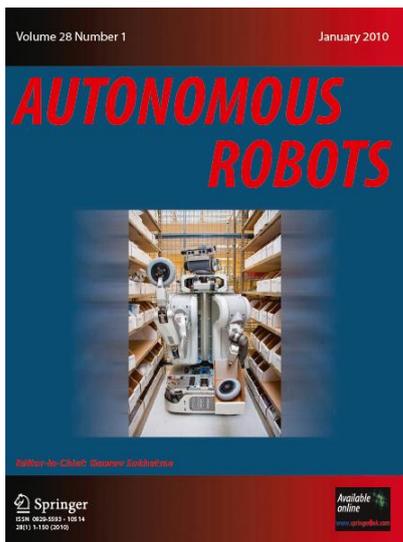
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Important Dates

- Paper submission deadline: October 29, 2010
- Notification of acceptance: February 11, 2011
- Date of Publication: Summer 2011

www.Springer.com/10514



ISSN: 0929-5593 (print)
1573-7527 (electronic)

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Special Issue Call for Papers

Search and Pursuit/Evasion with Mobile Robots

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In search problems, the objective is to find a target which may be adversarial or non-adversarial. Pursuit-evasion games are non-cooperative games where one or more pursuers try to capture an evader who, in turn, tries to avoid capture. Search problems and pursuit-evasion games have numerous applications in robotics. The primary goal of this special issue is to unify various formulations of search and pursuit/evasion problems towards a common theoretical and applied framework for autonomous robots. In addition to fundamental results in search and pursuit/evasion, papers presenting novel research in the emerging areas of search with unmanned ground (UGVs), aerial (UAVs), surface (USVs), and underwater (UUVs) vehicles, as well as heterogeneous search teams in both outdoor and indoor environments are solicited. This special issue follows a workshop at the IEEE International Conference on Robotics and Automation (ICRA2010) with a similar theme.

With the above motivation in mind, we invite original, high-quality research papers in the areas of robotic search and pursuit/evasion. Papers addressing one or more of the topics below are of particular interest:

- Graph search and theoretical foundations
- Geometric approaches to search in polygonal environments
- Adversarial search on discrete and continuous environment representations
- Game theoretic approaches to coordinated search
- Distributed planning and estimation for multiple searchers
- The role of sensing and perception for search
- Urban search and rescue and emergency response with mobile robots
- Search with Unmanned Aerial Vehicles and/or Unmanned Underwater Vehicles
- Combining search and target tracking
- Search systems and applications