

DECEMBER 15-17, 2002
NICE, FRANCE



WAFR 2002

FIFTH ANNUAL WORKSHOP ON ALGORITHMIC FOUNDATIONS OF ROBOTICS

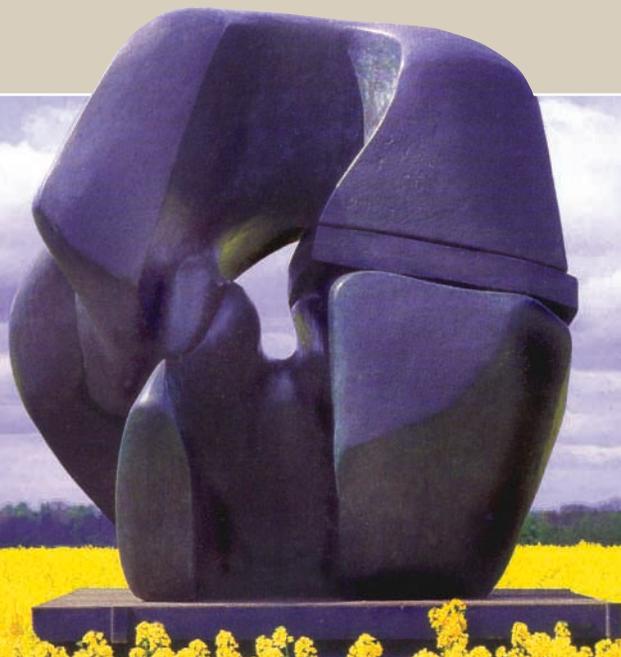
ROBOT ALGORITHMS are abstractions of computational processes that control or reason about motion and perception in the physical world. Because actions in the physical world are subject to physical laws and geometric constraints, the design and analysis of robot algorithms raises fundamental questions in computer science, computational geometry, mechanical modeling, operations research, control theory, and associated fields.

The biannual Workshop on Algorithmic Foundations of Robotics was established in 1994 as a single-track meeting to focus on algorithmic issues related to robotics and automation. The highly selective program highlights significant new results such as algorithmic models and complexity bounds. Discussion of new areas and open problems is encouraged.

WAFR 2002 will bring together approximately sixty researchers to present and discuss contributed and invited papers. The proceedings will be subsequently published in a hard-cover volume. Selected papers will also be published in a special issue of the International Journal of Robotics Research. Topics of interest include, but are not limited to:

- geometric algorithms
- simultaneous location and mapping
- surgery planning and guidance
- organ and tissue modelling
- computational molecular and structural biology
- simulation, animation, graphics
- holonomic and nonholonomic motion planning
- sensor-based planning and computer vision
- virtual environments and gaming
- manufacturing and assembly
- grasping and fixturing
- manipulation planning
- navigation and geographic information systems
- modular and reconfigurable robots
- distributed manipulation
- minimalist and underactuated robots
- controllability, complexity, and completeness

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Paper Submissions Due: July 1, 2002