

## 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:  
April 1, 2009
- Notification to authors:  
July 1, 2009
- Camera ready papers:  
October 1, 2009

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# Special Issue Call for Papers

## Control of Locomotion: From Animals to Robots

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The locomotion skills of current robots are still far behind those of animals in terms of energy efficiency, flexibility, and agility in complex unstructured terrains. The goal of this special issue is to capture the state of the art in locomotion control in biorobotics. We seek articles that present interesting examples of interactions between biology and robotics, in particular articles that demonstrate how inspiration from the animal kingdom can help improving locomotion skills in robots, and/or that illustrate how robots can be used as scientific tools in animal motor control, e.g. to test hypotheses about neural circuits and/or biomechanical principles in invertebrate and vertebrate animals. All aspects of locomotion will be considered including materials, actuators, sensors, control, and learning. In particular, the special issue aims at exploring how these different aspects can collectively be designed to improve the locomotor skills of future robots capable of moving in unstructured and partially unknown terrains.

Topics of interest include (but are not limited to):

- neuro-mechanical coupling
- central pattern generators
- compliant robots
- passive and dynamic walkers
- swimming robots
- crawling robots
- walking robots
- jumping robots
- gait transitions
- motor learning



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