

## Special Issue

# Progress and Prospects of Evolutionary Robotics

### Message from the Guest Editor

Traditional ways of designing robots have shown success mainly in controlled and well-understood environments. However, as applications for robots grow, the less controllable environments and the development of new robot materials make these traditional design methods less applicable. One area that is becoming more popular for robot design is Evolutionary Robotics. A major question that remains is how to evolve complete robots in real time and real space in a rich morphological space that enables closed-loop control. This would move the state of the art by concurrently running virtual and physical evolution integrated with bi-directional migration and cross-fertilisation between virtual and physical individuals. This Special Issue invites the submission of papers that present new methods, approaches, designs, concepts and software tools for Evolutionary Robotics. Potential topics include, but are not limited to, the following: novel methods for simultaneous evolution of morphology and/or control, novel methods for facilitating learning and/or adaptation during lifetime, robot evolution in hardware and evolution of morphologies using novel materials.

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### Guest Editor

Prof. Dr. Andy Tyrrell

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### Deadline for manuscript submissions

30 September 2025



## Robotics

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## About the Journal

### Message from the Editor-in-Chief

It is my great pleasure to welcome you to our open access journal, *Robotics*, which is dedicated to both the foundations of artificial intelligence, bio-mechanics and mechatronics, and the real-world applications of robotic perception, cognition and actions. The 21st century is the robotics century and intelligent robots will change our lifestyle forever. Let us work together toward the realization of intelligent robots step by step. It is great fun to create intelligent robots and imagine their practical applications. *Robotics* is now ready to serve you in the long journey towards such a goal.

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### Editor-in-Chief

Prof. Dr. Marco Ceccarelli

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