

# CIRA2005 special session

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A special session on developmental robotics

Ontogenetic Robotics

Special Session at IEEE CIRA 2005

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Chairs: Giorgio Metta (University of Genoa, Italy) and Chrystopher L. Nehaniv (University of Hertfordshire, UK)

Scientific interest in artificial agents and robots that can grow up and learn has been increasing rapidly in the last few years. The field of ontogenetic robotics (sometimes called developmental robotics or epigenetic robotics) has attracted numerous researchers and interest in embodied agents that develop and learn, develop sophisticated perceptual systems, acquire sensorimotor maps and control of their own bodies, master the affordances provided objects in the environment, interact with the environment and social partners. Key issues include the design of ontogenetic robotic platforms, embodied and social interaction, implementing development processes, development of individuality and capabilities contingent upon interaction history, the scaffolding of cognitive capabilities, and the expanding zone of proximal development.

Ontogenetic robotic systems provide models and test-beds for theories in developmental psychology and cognitive science. At the same time, they present a fertile research field for the methods and applications of computational intelligence in robotics and automation.

Submissions Short abstracts (max. 1 page in plain text format), including author affiliation and presentation title, proposing papers for the special session should be sent to the C.L.Nehaniv@herts.ac.uk by 25 January 2005.

All papers will be refereed according to IEEE conference standards and published in the proceedings of IEEE CIRA 2005.

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