DESCRIPTION

*BioSystems* encourages theoretical, computational and experimental articles that link *biology*, *evolutionary concepts*, and the *information processing sciences*. The journal is dedicated to developing the consequences of the discoveries of biological information and of the genetic code - with the view of obtaining a better understanding of the origins and evolution of biological organization, biological adaptability, and the origin of mind and language.

The scope of the journal encompasses the fundamental nature of *biological information processing*. This includes quantum phenomena in information transfer, natural computing, biological coding systems, biological complexity, theoretical biology, artificial life, computational modeling of complex biological systems, evolutionary models of computation, application of biological principles to the design of novel computing systems, and the use of biomolecular materials to synthesize artificial systems that capture essential principles of natural biological information processing.

The journal does not publish purely medical, computational, or ecological research, unless it is clearly linked to the basic and conceptual aspects of biological organization.

The editors encourage articles that deal, in particular, with the following topics:

- Biological computation
- Molecular recognition
- Physical foundations of biology
- Quantum phenomena in biological systems
- Cellular control
- Neuromolecular computing
- Biological coding systems
- Molecular computing processes
- Self-organizing and self-replicating systems
- Origins and evolution of the genetic mechanism
- Stochastic evolutionary algorithms
- Origins and evolution of mind and language
- Simulation of genetic and ecological systems
- Applications (neural nets, machine learning, robotics)

AUDIENCE

Biomathematicians, cyberneticians, mathematical modellers, zoologists, molecular and cellular biologists, biochemists, researchers in molecular and cellular evolution, pre-biotic systems, origins of life.

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INTRODUCTION

BioSystems encourages experimental, computational, and theoretical articles that link biology, evolutionary thinking, and the information processing sciences. The link areas form a circle that encompasses the fundamental nature of biological information processing, computational modeling of complex biological systems, evolutionary models of computation, the application of biological principles to the design of novel computing systems, and the use of biomolecular materials to synthesize artificial systems that capture essential principles of natural biological information processing.

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