Call for Papers: Special Issue of *Nonlinear Dynamics, Psychology, and Life Sciences* on Psychomotor Coordination and Control

NDPLS is actively searching for manuscripts for a special issue to be entitled, "Psychomotor Coordination and Control." Topics for potential papers could include:

- Response time and movement generation
- Sensorimotor responses, including any of the senses
- Neural-behavioral mechanisms
- Cognition-action sequences
- Vestibular-oculomotor synchronization
- Motor coordination
- Skill acquisition
- Intentionality and behavior
- Robotic design
- Multiple robot systems

- Physiological synchronization between humans
- Operation of real systems such as automobiles, aircraft, or industrial equipment
- Effects of sleep deprivation and stress on motor performance or cognition-action sequences
- Modification by pathological conditions including concepts for diagnosis and treatment
- Mechanisms of prediction and adaptation

Contributions may be theoretical or empirical. Theoretical papers should be firmly grounded in the extant literature and culminate in new principles involving nonlinear dynamics that can be tested; manuscripts heavy on conjecture with little reference to evidence are not encouraged. Reviews of the relevant literature on applications of nonlinear dynamics are also welcome, if they synthesize and interpret this material in novel ways. Empirical papers may include experimental observations, simulations, or analyses of real-world data. Articles will be reviewed by two or more experts in the relevant field.

The purview of the journal is critical to the inclusion of articles: *Nonlinear Dynamics, Psychology, and Life Sciences* publishes papers that augment the fundamental ways we understand, describe, model, and predict nonlinear phenomena in psychology and the life and social sciences. One or more of the following nonlinear concepts must be an explicit part of the exposition: attractors, bifurcations, chaos, fractals, solitons, catastrophes, self-organizing processes, cellular automata, genetic algorithms and related evolutionary processes, neural networks, agent-based models. The broad mixture of the disciplines represented here indicates that many bodies of knowledge share common principles. By juxtaposing developments in different fields within the life and social sciences, the scientific communities may obtain fresh perspectives on those common principles and their implications. Because the journal is multidisciplinary in scope, each article should make an original contribution to at least one substantive area and, to the extent possible, illuminate issues beyond that area's boundaries.

NDPLS is a refereed journal and is published quarterly by the Society for Chaos Theory in Psychology & Life Sciences. Additional information for the preparation of articles for submission can be found on the journal's web site: <u>www.societyforchaostheory.org/ndpls/</u>. The project is planned on the following schedule:

- Abstracts are requested prior to submission in order to assist with the organization of the issue contents, and they are welcome any time before the paper submissions deadline. Send abstracts by e-mail to <u>mjs@dizzy.med.jhu.edu</u>
- Full-text papers need to arrive by January 20, 2008. Electronic submission to the email address above is preferred. Manuscripts should be prepared in APA style. Key style points and small variations that are specific to the journal can be found in the Instructions for Authors on the

journal web site.

- Reviews completed by March 20, or sooner to the extent possible.
- Revisions and final edits should be received by June 1, 2008.
- Publication in January, 2009.

We look forward to receiving your abstracts and papers. If you have any questions about the project, please do not hesitate to ask one of the editors below.

Sincerely, Stephen J. Guastello, Ph.D. <u>Stephen.guastello@marquette.edu</u> Editor in Chief

Mark Shelhamer, Sc.D. mjs@dizzy.med.jhu.edu Special Issue Editor