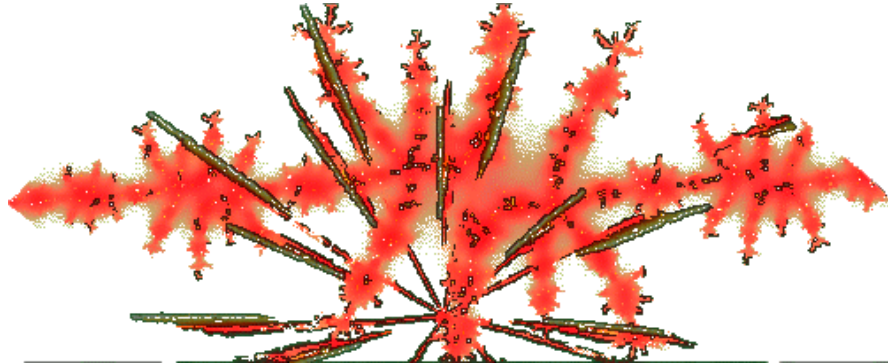


Call for Papers:
**Special Issue of *Nonlinear Dynamics, Psychology, and Life Sciences* on The
Dynamics of Resilience and Adaptive Responses to Traumatic Stress**



Nonlinear Dynamics, Psychology and Life Sciences (NDPLS) is actively searching for manuscripts for a special issue “The Dynamics of Resilience and Adaptive Responses to Traumatic Stress.”

OVERVIEW: The dynamic nature of adaptive responses to stress is an important characteristic of social, psychological, physiological, and ecological systems. This resilience is defined by the system’s ability to resist and maintain, or recover, overall functioning during and after stress. Linear and reductionistic approaches have been fruitful in laying some groundwork for understanding resilience. For example, there exists some solid understanding of isolated biological mechanisms, individual personality traits, or general characteristics of a social environments that are correlated with better resilience. Similarly, linear measures of behavioral responses to stressors have been examined to approximate system responses prior to, during, and after periods of stress. However, such linear and reductionistic approaches cannot account for the wide variety of complex system responses over time – which may include patterned recurrence, nonlinear dynamics, discontinuous shifts, and irreversible responses, each of which may be useful in better understanding resilience in real-world systems as a temporal and a structural process. Examples of these response include mental health responses in response to mass disasters, war, occupational, or personal trauma; organizational responses to changes in personnel, worker burnout processes, and other adjustments in workload or management practices; performance in high-stress first-responder or service member environments; and injury prevention and health recovery following acute injury. Thus, understanding resilience as a response process, and elucidating the specific dynamics that underlie resilience is an important aspect of helping people and systems adjust and adapt to changing circumstances. The purpose of this special issue is to deepen our understanding of resilience in both theoretical and applied contexts, with approaches that consider stress as negative or that highlight potential positive roles (e.g., hormesis, post-traumatic growth, and antifragility) of stressors both welcomed.

This special issue is aimed at contributing to the broad array of topics dealing with nonlinear, discontinuous, and irreversible phenomena associated with resilience in social, physiological, psychological, and environmental contexts. Theoretical papers, simulation studies, and empirical

investigations are all acceptable for submission. Areas and topics of particular interest include (not an exhaustive list):

Post-trauma recovery or growth

Physical health, functioning, and performance

Psychological health, functioning, and performance

Social and organizational functioning in response to stress

Fostering resilience, training, and other forms of prevention or intervention

Non-perturbative approaches to identifying resilience

Examinations of factors that underlie resilience

Modeling the dynamics of response trajectories

Development of dynamic response profiles

Self-organizing and emergent processes

Potential modeling strategies and nonlinear methods include (also not an exhaustive list):

Equation- and Agent-based modeling of resilience

Nonlinear time series analyses

Catastrophe theory applications

Symbolic dynamics

Mixed-method approaches

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, and 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 be constructed for understanding by a broad readership.

NDPLS is published quarterly by the Society for Chaos Theory in Psychology & Life Sciences. Articles will be reviewed by two or more experts in the relevant field. Additional information for the preparation of articles for submission can be found on the journal's web site: www.societyforchaostheory.org/ndpls/.

The project is planned on the following schedule:

- Abstracts for intended articles should arrive by **November 1, 2023**. (Note the change.)
- Full-text papers need to arrive by January 15, 2024. Please send the manuscripts to the editor in chief and the special issue editors by e-mail (addresses below).
- 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: www.societyforchaostheory.org/ndpls/author_instructions/
- Reviews will be completed by March 1, 2024, or sooner to the extent possible.

- Revisions and final edits should be received by May 1, 2024.
- Publication in July 2024.

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,

Adam Kiefer, Ph.D. (awkiefer@email.unc.edu), David Pincus, Ph.D. (pincus@chapman.edu), and Bernard Ricca, Ph.D. (bricca@uccs.edu), Special Issue editors

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