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Nonlinear Phenomena

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University of Arizona, Department of Mathematics, Tucson, Arizona 85721,

J. Ford
Georgia Institute of Technology, School of Physics, Atlanta, Georgia 30332

A. C. Newell
Clarkson College of Technology,
Department of Mathematics and Computer Science, Potsdam, New York, 13676.

A. Scott
University of Wisconsin,
Department of Electrical and Computer Engineering, Madison, Wisconsin 53706.

Aims and Scope:

- *This journal is designed with the aim of providing a common forum for scientists interested in exploring the role of nonlinearity in natural phenomena. It will contain:*
- *Communications of original research, conforming to the general standards described below.*
- *Invited or contributed surveys accessible to readers with diverse backgrounds.*
- *Announcements and summaries of meetings, recommendations of book or review papers, etc.*

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In order to give some focus to the first few issues, the editors intend to stress certain areas in which the importance of nonlinearity is particularly apparent: numerical analysis and applied mathematics, hydrodynamics, plasma physics, statistical physics, solid state physics, celestial mechanics, quantum field theory, biological or chemical reaction-diffusion systems. The principal aim is to publish reports of experiments, techniques, and ideas which — although they may be derived and explained in the context of a particular field — advance the understanding of nonlinear phenomena in general. Contributions of this type in the recent literature have dealt with: wave motion in physical, chemical and biological systems; chaotic motion in models relevant to turbulence, meteorology, or nerve impulse propagation; quantum and statistical mechanics governed by nonlinear field equations; instability bifurcation pattern formation and cooperative phenomena in diverse systems. This list is neither inclusive nor final, and the editors will try to make room for any other field which is providing particularly rich new insights into the nature and scope of nonlinear effects.

In accordance with the goals of the Journal, both research papers and survey papers are invited. A research paper should deal with an aspect of nonlinearity of potential relevance to diverse areas. Use of specialized language should be minimized so that readers can evaluate the applicability of the idea to other fields. Survey papers dealing with the role of nonlinearity in problems of general scientific interest or with techniques of value in different fields are particularly welcome. An honorarium is provided for each survey article upon acceptance. A prospective author of a survey article should first contact the editors with a proposal.

Call for papers

The editors invite contributions from the scientific community in both the research and survey categories. All contributions should be sent to any one of the four editors.

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