



CALL FOR PAPERS



The International Workshop on Modeling Dynamics *et al.*

Special Issue on ‘**Modeling Complex Dynamics of Structured Populations in Life & Social Sciences: Through Simulations, Interdisciplinary Approaches, and Experimentation**’ – MoDSIP

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Special Issue Information

Manuscript submission deadline: October 31, 2018 (early submissions are welcome)

Dear Colleagues,

The **1st International Workshop on Modeling Dynamics, Statistical Inference and Prediction of Infectious diseases (1st MoDSIP-ID)** was held at the Sri Sathya Sai Institute of Higher Learning (SSSIHL), Vidya Giri, Prashanti, Nilayam, Puttaparthi, Anantapur District, Andhra Pradesh, India from August 12 to 15, 2018 and was partially supported by NSF grant (DMS-1840884), the Simon A. Levin Mathematical Computational and Modeling Science Center (MCMSC) of Arizona State University, and DMACS-SSSIHL. This is the first of the annual workshop on mathematical modelling and analysis of life and social sciences problems from developing or resource-limited regions, jointly organized by researchers from institutions in the United States (US) and India. The application topic of the workshop is expected to change every year, with this year’s topic being ‘Tropical Infectious Diseases’. It attracted more than 120 participants from the USA, India, Portugal, Ecuador, and Tanzania. There was a featured plenary talk by Professor Carlos Castillo-Chavez from Arizona State University and many invited talks. The workshop included six hands on sessions using computational or mathematical methodology labs. The workshop was very successful, with record-breaking numbers in both participants and talks.

In this special issue, we are calling for papers that address innovative mathematical, computational and statistical methodologies to gain a better understanding of systems in life and social sciences. The focus of the issue will be dedicated to exploring and discussing the complexities in population ecology, epidemiology and social sciences as well as applications to infectious diseases.

We also encourage articles to present experiment-based development of models and analysis as well as state-of-the-art computational algorithms and statistical analysis that will help promote the understanding of the social and contextual mechanisms generating changes in populations.

Potential topics may include but not limited to modelling work highlighting features of transmission regimes and system trajectories or responses that may be expected of particular ecologies and social and environmental factors, including population demographics, and management approaches; use of spatial techniques and methodologies in clustering and control; systems biology and molecular approaches to investigating the parasite-host interface and for drug discovery and; fast and efficient algorithms for predictive analysis. In summary, this issue will gather theoretical, methodological and applied articles exploring issues in life and social sciences fields.

All papers must contain a comprehensive introductory section and an in-depth discussion section that is closely tied to applications. The scientific importance and motivation of the paper and its conclusions should also be made clear at the outset.

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GUEST EDITORS

Keywords:

Population Ecology and Epidemiology; Modeling Infectious Disease; Dynamics of Social-Behavioral Problems; Systems Biology; Spatial Modeling; Integrated Control; Predictive Analysis; Social Science Studies and; Sustainability.

Instructions for Submission:

Each article in the special issue is assigned a unique identifier and then published as soon as possible in the journal Letters in Biomathematics (<https://www.tandfonline.com/toc/tlib20/current>). Once all papers are published online, they will be assigned to a special issue.

Please follow the 'Guide for Authors' of the journal to prepare your manuscripts. Please submit your manuscripts via ScholarOne Manuscripts™ at: <https://mc.manuscriptcentral.com/tlib>

Please add cover letter with your manuscript submission and indicate clearly in it following things:

- the manuscript is submitted for the special issue
- the 'Article Type' (Research/Review/Commentary etc.)
- title and list of authors (along with the emails of all authors)
- name of the corresponding author
- few lines stating novelty in the manuscript

Each manuscript will be thoroughly reviewed.

Publication: As soon as accepted. Special Issue articles do not need to wait for the final article to be ready before publication.

The journal has waived the Article Processing Charge (APC) for publication in this open access journal for accepted articles for this special issue.

Submitted papers should be well formatted and use good English.

There will be limited number of papers that will be accepted in this special issue, so apply as early as possible.