

**Recent Advances in Biological, Epidemiological and Social
Dynamics
Special Session B26**

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Innovative mathematical models for biological, medical, epidemiological, and social dynamics are now more crucial than ever. In recent years, such models have found wide application in, for example, the study of infectious diseases (COVID-19 in particular), the behavior of large crowds, online dissemination of misinformation, and the development of new immunotherapies. This Special Session aims to collect the most recent efforts of the mathematical community to produce reliable models spanning a wide range of topics relevant to the biological and social sciences. We will explore diverse classes of models: including, but not limited to, models based on ordinary and partial differential equations, networks, kinetic theory, and agent-based approaches, as well as modern data-driven techniques. Aspects relating to phenomenological modeling, mathematical analysis, model calibration and validation, as well as applications will be considered. The ultimate goal of the Special Session is to foster the exchange of ideas among researchers with diverse mathematical expertise, working in a broad range of application areas. The Special Session also promotes the activities of the UMI Group Modellistica Socio-Epidemiologica (*Socio-Epidemiological Modeling Group*).