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# **Grasshopper Service Manual**

**Rubem Mondaini** 

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BIOMAT 2007 Rubem Mondaini, 2008 The present volume contains the contributions of the keynote speakers of the BIOMAT 2007 Symposium as well as selected contributed papers in the areas of mathematical biology biological physics biophysics and bioinformatics. It contains new results on some aspects of Lotka Volterra equations the proposal of using differential geometry to model neurosurgical tools recent data on epidemiological modeling pattern recognition and comprehensive reviews on the structure of proteins the folding problem and the influence of Allee effects on population dynamics. This book contains some original results on the growth of gliomas the role played by membrane channels on activity dependent modulation of spike transmission a proposal for reconsidering the concept of gene and the understanding of the mechanisms responsible for gene expression a differential geometric approach to the influence of the drying effect on the dynamics of pods of Leguminosae the comparison of agent based models with the approach of differential equations on the study of selection mechanisms in germinal centers and the synchronization phenomenon for protocell systems driven by linear kinetic equations

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