

Table of Contents

I. Epidemiology	Chairman: J. Berger	Page
1.1	The incidence of infectious disease under the influence of seasonal fluctuations K. Dietz	1
1.2	Some simple models of the population dynamics of eucaryotic parasites R.M. Anderson	16
1.3	Abstract model and epidemiological reality of Influenza A A. Fortmann	58
1.4	Model of rabies control J. Berger	74
1.5	Discussion	89
II. Cell models	Chairman: P. Tăutu	
2.1	A Markovian configuration model for Carcinogenesis K. Schürger and P. Tăutu	92
2.2	Branching models for the cell cycle W. Rittgen and P. Tăutu	109
2.3	Formal languages as models for biological growth P. Tăutu	127
2.4	Graph rewriting systems and their application in Biology M. Nagl	135
	Discussion	157

III. Pharmacokinetics	Chairman: R. Repges	page
3.1	A mathematical model of erythropoiesis in man H.E. Wichmann, H. Spechmeyer, D. Gerecke and R. Gross	159
3.2	Simulation of biochemical pathways and its application to Biology and Medicine O. Richter and R. Betz	180
3.3	Some remarks on the physical basis of Pharmacokinetics R. Repges	198
3.4	Mathematical models in the study of drug kinetics G. Segre	204
3.5	On some applications of the eigenvector decomposition principle in pharmacokinetic analysis W. Müller-Schauenburg	226
3.6	A General Approach to Multicompartment Analysis and Models for the Pharmacodynamics U. Feldmann and B. Schneider	243