

Table of Contents

1.	Mathematical models of dengue fever epidemiology: multi-strain dynamics, immunological aspects associated to disease severity and vaccines.	
	Maíra Aguiar and Nico Stollenwerk	1
2.	Estimation of time-space-varying parameters in dengue epidemic models	
	Karunia Putra Wijaya and Thomas Götz	13
3.	A particle system model for dengue transmission	
	Mona Zevika, Edy Soewono and Oliver Tse	32
4.	On a territorial competition between rhinoceros sondaicus and bos javanicus at ujung kulon national park	
	Eric Harjanto	46
5.	The role of top-predator in the preservation of coral reefs ecosystem	
	R. Ratianingsih, N. Ismawati, J. W. Puspita and A. I. Jaya	54