## PETER STECHLINSKI, University of Waterloo

Control strategies for a seasonal model of chikungunya disease

We present a model for the outbreak of chikungunya, a vector-borne disease, on Reunion island in 2005-06. Seasonality is added to the model by considering variations in the birth rate of the mosquito population and variations in the contact rate between mosquitoes and humans. Possible control strategies are presented and studied theoretically (for example, the mechanical destruction of mosquito breeding sites). The control schemes are compared numerically by calculating an efficacy rating under different scenarios (for example, varying the duration of the scheme).