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OPTIMAL CONTROL FOR A DENGUE SCENARIO WITH TWO SEROTYPES: DIRECT *VS* INDIRECT METHODS

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ABSTRACT

Dengue is a mosquito-borne disease of growing global health importance. Although dengue is primarily a tropical disease, in countries with temperate climates the number of imported cases in recent years – resulting from increased air travel and the introduction of an exotic vector adapted to a cold climate – has significantly increased [1, 2]. It is known that prevention efforts focused on mosquito control have a limited success due to the resistance of insecticide, which lead us to a special concern to its application in strategic places and specific time. An optimal control problem for a dengue model with two serotypes is presented [3]. The problem is solved by direct and indirect methods and the corresponding results are compared.

References

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