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**YANYU XIAO**, University of Alberta

*Modeling the effect of human activities on the transmission of vector-borne diseases*

Mosquito-borne diseases/zoonoses bring significant amount of deaths among human and other hosts, such as livestock and birds, and cause huge economic costs and losses. Human activities enormously contribute the outbreak and spread pattern of vector-borne diseases/zoonoses. I will present mathematical models to explore that how socioeconomic factors in conjunction with other well-known factors, i.e., disease latency and seasonality, will impact disease dynamics.