1154-VN-287 **aubain H Nzokem*** (`aubain14@mathstat.yorku.ca`) and **Neal Madras** (`madras@mathstat.yorku.ca`). *Epidemic Dynamics and adaptive vaccination strategy :scalar-renewal equation approach.*

We use analytical and numerical methods to investigate the continuous vaccination strategy effects on the infectious disease dynamics in the closed population and the demographi- cally opened population. The methodology and key assumptions are based on Breda et al (2012). We show that the cumulative force of infection for the closed population and the endemic force of infection in the demographically opened population can be reduced significantly by combining two factors: the vaccine effectiveness and the vaccination rate. The impact of these factors on the force of infection can transform an endemic steady state into to a disease free state. (Received August 29, 2019)