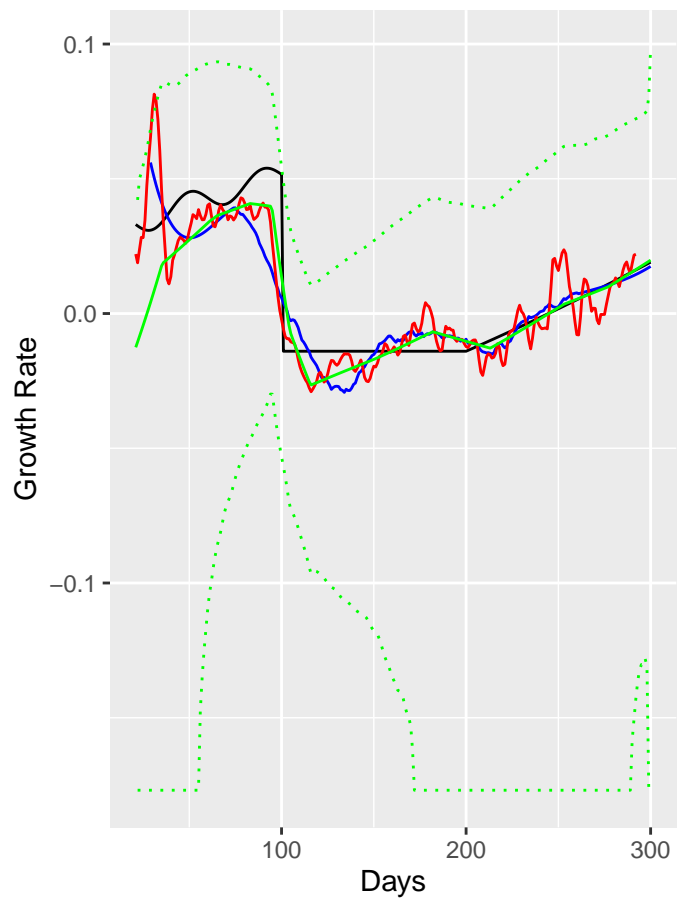


a) Estimating Instantaneous Reproduction Number



$R_{estimate}$ R_{true}

b) Estimating Instantaneous Growth Rate



$r_t | \lambda_{m,t}$ $r_t | R_t$ $r_t | S_t$ r_{true}