**Latest updated:** 15 November 2022

**Title:** Cost-effectiveness of fractional doses of COVID-19 vaccine boosters in India

**Authors:** Zhanwei Du, et al.

**Main code**: Github\_Main\_Booster.mlx

**Matlab software version**: Matlab R2021b

**Description**: Run main code (**Github\_Main\_Booster.mlx**) for 100 times for each transmission scenario of reproduction number, and output the targeted public health burden.

Most parameters are given in ***Github\_ini.mlx***. And other variable parameter settings are:

**For running codes**

* RunTimes
  + # simulations per transmission scenario
* Rte\_Range
  + Reproduction number range
* doseNumScales
  + # dose fractionation
* BoosterVE\_Index
  + the waning vaccine efficacy of fractional dosing boosters beginning from the #-st day of that of standard dose.
* BoosterTaken\_Index
  + the duration of booster dose post second dose

**For outputting results**

* targetMeasure
  + Public health output type, e.g., NMB, Hospitalization averted, Death averted
* willingnessRange
  + Willingness to pay for each of age group

**Notes**: I run these codes in a high-performance workstation with parallel computing, taking about ~ 6 hours. If users run on their own computer, there may be days needed to finish the running. In this way, I suggest reducing *RunTimes*, perhaps to be 2.