

Information Parameters for a Stochastic Country-Specific COVID19 Model

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We build a country-specific epidemiological COVID19 model. Some of the 15 information input parameters are country-specific such as social distancing rate, transmission rate, medical care quality, treatment progress rate, strength of citizen's immune system, immunization rate, or saturation rate (also termed 'herd immunity'). The information input parameters are functionally related which adds realism, however, also complexity to the model. To further add realism, the core equations are SDEs (Stochastic Differential Equations). The model outputs infection rate, recovery rate, and mortality rate fit specific countries well.