



Figure 1: The dots represent the “survival” curve calculate with my SARS-CoV-2 infection ABM model with respect the “arbitrary” definition of “death” given by *having a viral load above the threshold $\theta = 1000$ particles/microliter of blood at day 30 from infection*. The line is the fit with function in eq(1). Y-axis is percent of individuals with viral load at day 30 above θ ; x-axis is time in days.

$$S(x, a, b, c) = 100 - \frac{a}{1 + \exp(-b \cdot (x - c))} \quad (1)$$

Figure 1 shows the survival curve calculated on 10^4 simulations of the ABM model of immune response to infection from SARS-CoV-2 model (reprint will be available at bioRxiv soon [1]) calculated on a virtual cohort of individuals with varied degree of immuno-competence (function of the age) and varied viral characteristics (details can be found in the preprint). Figure 1 shows the best fit with eq(1) with parameters

a= 92.7129027005124

b= 0.146662180238855

c= 54.3074016788028

References

- [1] Filippo Castiglione, Debashrito Deb, Anurag P. Srivastava, Pietro Liò, and Arcangelo Liso. From infection to immunity: understanding the response to SARS-CoV2 through in-silico modeling. Preprint to appear on bioRxiv (<https://www.biorxiv.org>).