

# Figures and Tables

**Dynamods:** Theyn Kan, Zheng Xia, Iga Pregowska

February 13 2026

## Question 1

Table 1: Model fitting results and goodness-of-fit statistics.

Model	Params	$R^2$	$\chi^2$	$\chi^2_{\text{red}}$
Ping-Pong	[1, 0.1, 0.1]	1.0	$1.24 \times 10^{-25}$	$4.19 \times 10^{-28}$
Sequential type 1b	[1, 0.1, 0.1, $2.06 \times 10^{-8}$ ]	0.99	$4.56 \times 10^{-10}$	$1.54 \times 10^{-12}$
Sequential type 1a	[0.79, 0.03, 0.60]	0.81	$1.43 \times 10^5$	$4.81 \times 10^2$

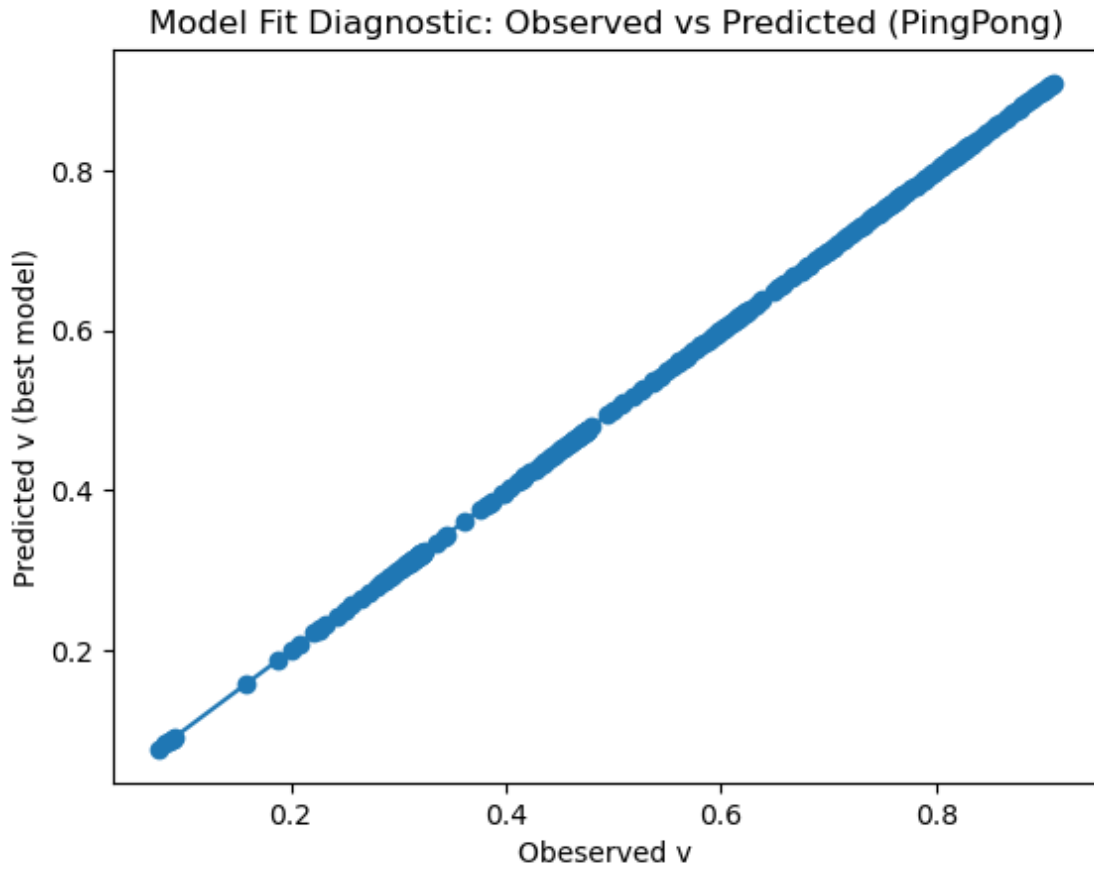


Figure 1: Model fit diagnostic: observed v.s. predicted (PingPong)

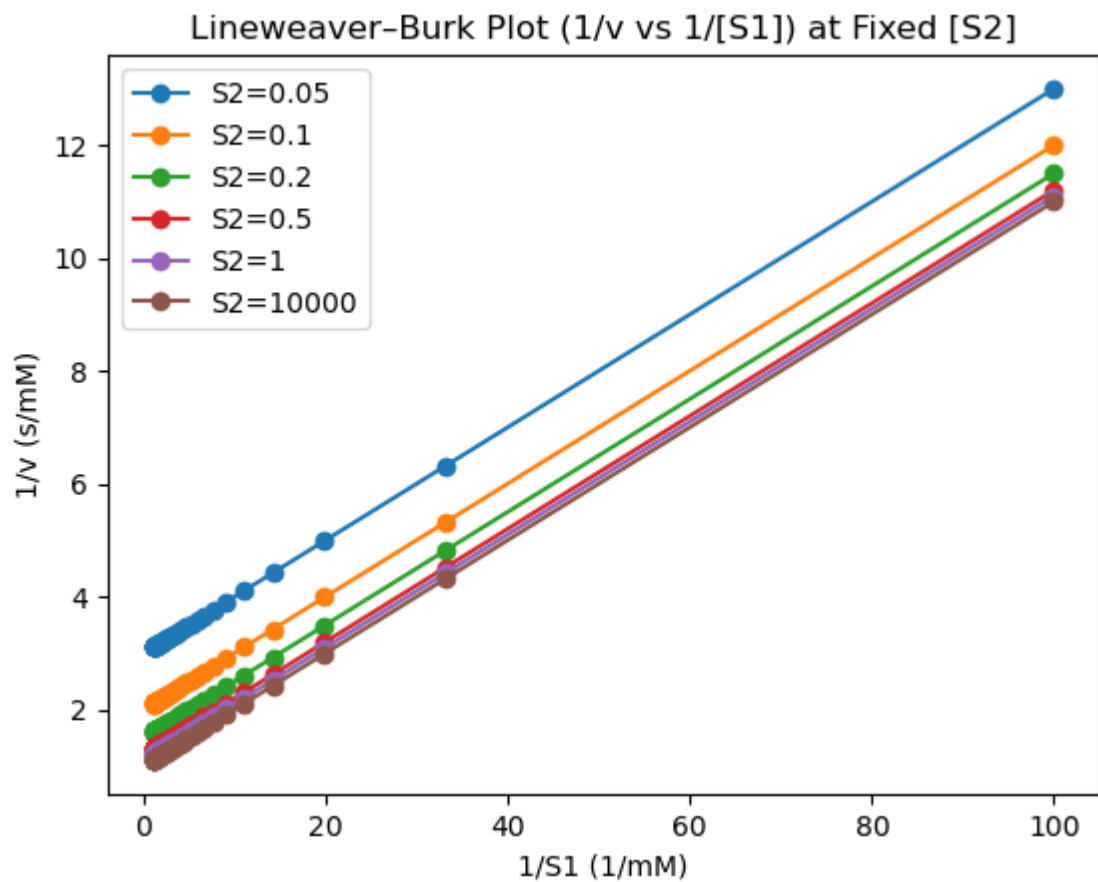


Figure 2: Lineweaver-Burk Plot ( $1/v$  vs  $1/[S1]$ ) at Fixed  $[S2]$

Table 2: Bootstrap summary			
Parameter	Median	95% CI (lower)	95% CI (upper)
$V_{\max}$	1.0	1.0	1.0
$K_{m1}$	0.1	0.1	0.1
$K_{m2}$	0.1	0.1	0.1

## Question 2

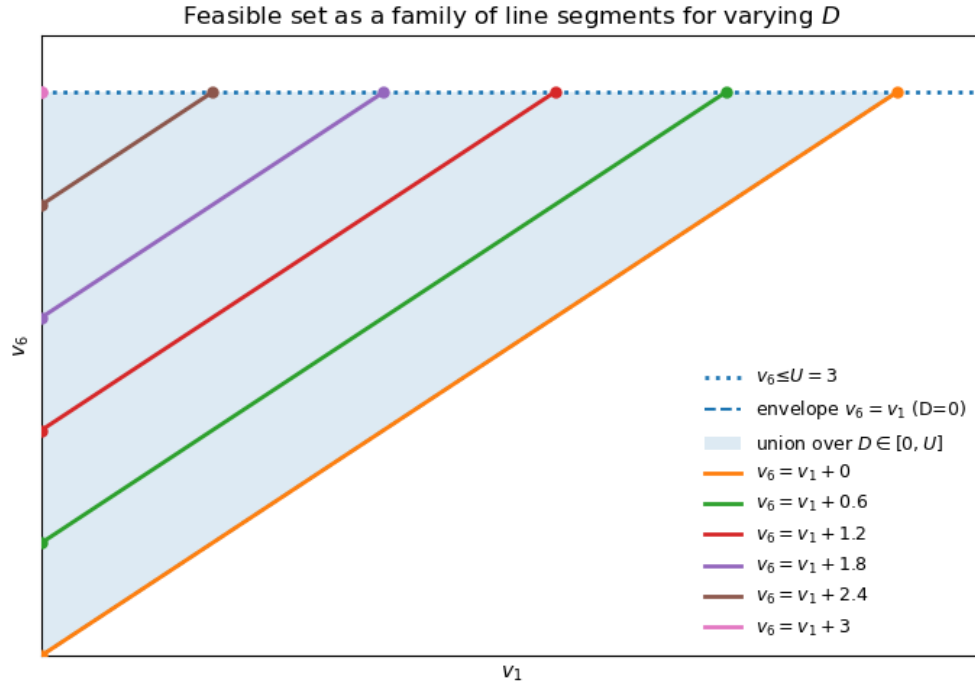


Figure 3: Feasible set as a family of line segments for varying  $D$

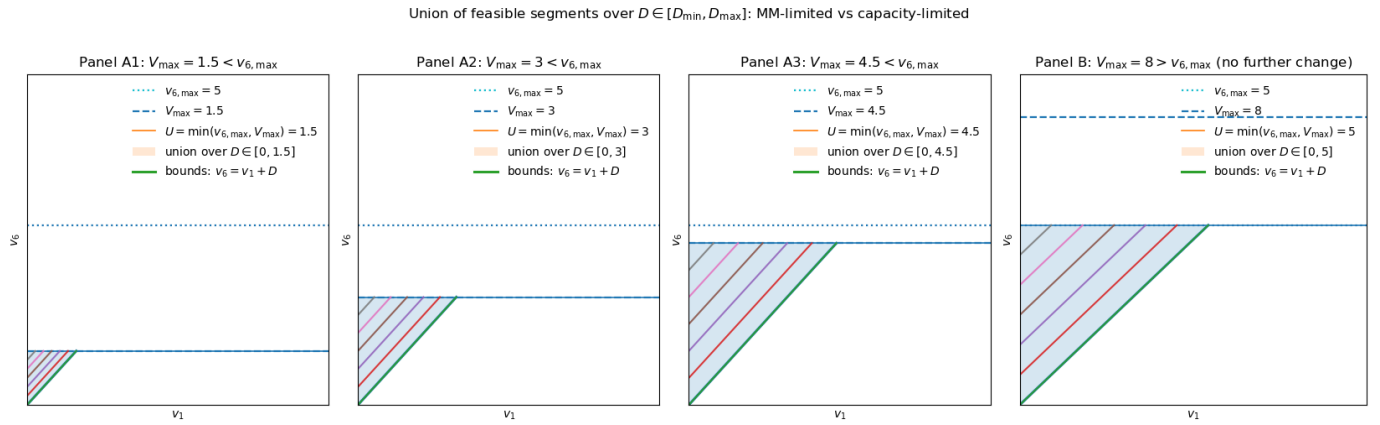


Figure 4: Effect of  $V_{\max}$  on the  $(v_1, v_6)$  Feasible Set

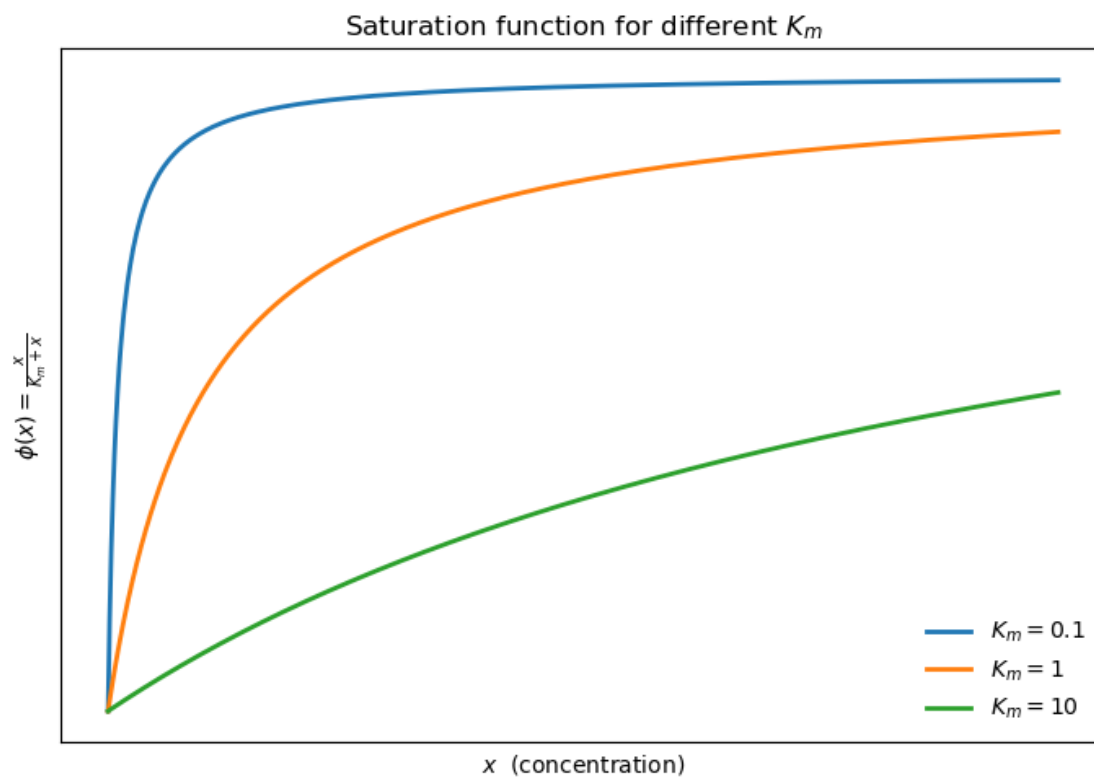


Figure 5: Saturation function for different  $K_m$

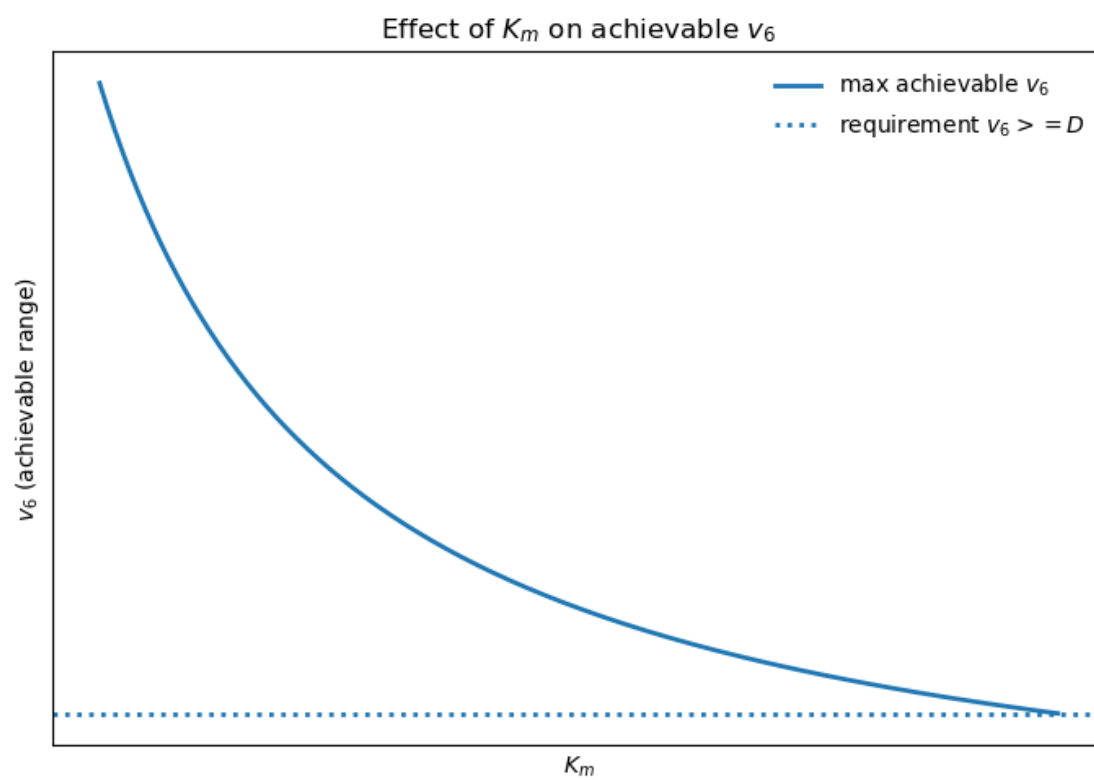


Figure 6: Effect of  $K_m$  on achievable  $v_6$