

Relatório EDPs HCV

para a reuniao do dia 06/03/21

es com DE para 8 dias pacientes BXX CXX: 5param -> 8 param; 8 param ->

Matheus Avila Moreira de Paula

UFJF

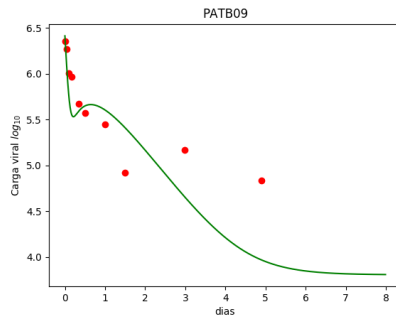
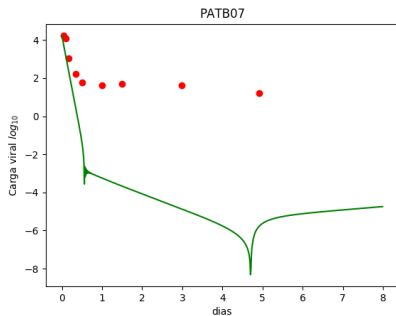
- 50 popsize 50 maxiter
- Primeiro foi feita uma aproximação para o valor de V_0 com 5 parâmetros.
- Parametros e bounds:
 - $\alpha = 20,60$
 - $r = 0,1,10$
 - $\delta = (0,01,2)$
 - $\mu_c = (0,1,2)$
 - $\rho = (1,15)$
- Com os resultados dessa DE foi realizado uma nova DE para 8 dias, com 8 parametros
- Parametros e bounds:
 - $\epsilon_r = (0,1,0,99)$
 - $\epsilon_\alpha = (0,1,0,99)$
 - $\epsilon_s = (0,1,0,99)$
 - $\theta = (1,2)$
 - $\sigma = (1,2)$
 - $k_t = (1,2)$
 - $k_c = (1,2)$
 - $c = (10,25)$

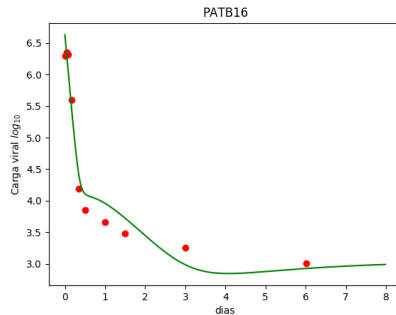
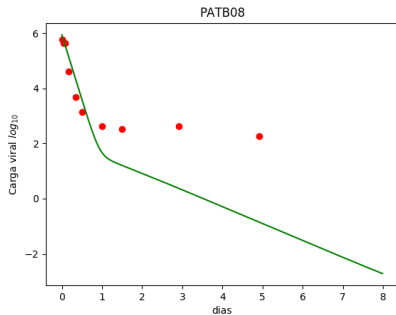
Table: Parametros da primeira DE

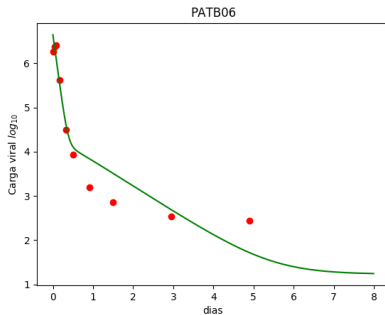
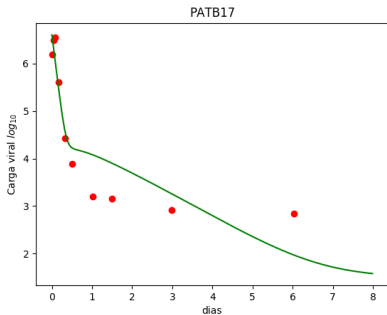
Paciente	α	r	δ	μ_c	ρ	custo
PATB07	48.9	0.14	1.984	1.91	9.151	1.5e-5
PATB09	30.567	1.34	1.046	0.73	14.97	3.06e-5
PATB08	39.497	1.004	1.443	0.85	2.77	1.25e-5
PATB16	39.36	2.091	1.55	1.57	3.72	3.92e-5
PATB17	36.40	2.17	1.51	1.60	14.58	1.45e-4
PATB06	24.25	5.98	1.94	1.83	4.036	1.59e-6
PATC05	31.34	1.75	0.908	1.39	3.899	6.32e-5
PATC06	23.458	5.62	1.76	0.817	13.20	2.21e-5
PATC09	41.336	2.73	1.73	1.10	2.12	6.05e-5
PATC10	33.09	0.37	0.36	1.233	12.170	1.4e-5

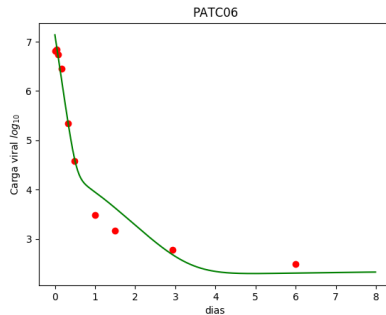
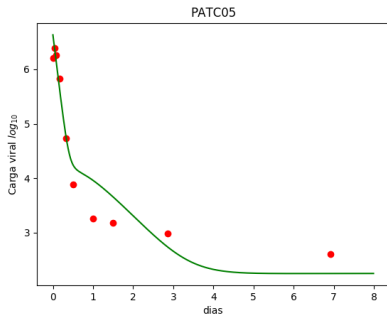
Table: Parametros da segunda DE

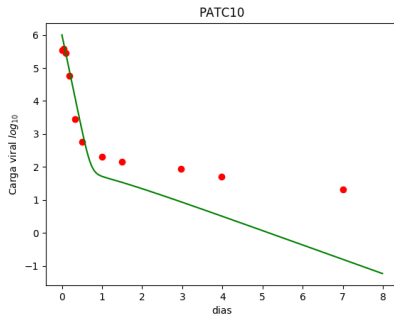
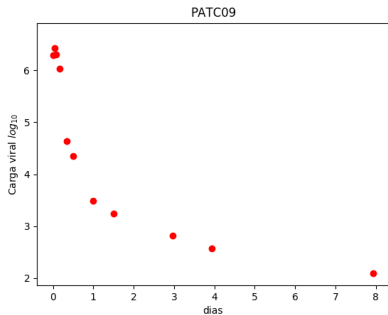
Pat	ϵ_r	ϵ_α	ϵ	θ	σ	k_t	k_c	c	custo
B07	0.13	0.89	0.99	1.05	1.93	1.39	1.09	24.69	0.156
B09	0.82	0.104	0.98	1.98	1.013	1.39	1.05	10.01	0.076
B08	0.11	0.79	0.99	1.01	1.999	1.41	1.79	22.29	0.18
B16	0.60	0.51	0.989	1.00	1.99	1.47	1.003	15.03	0.074
B17	0.18	0.83	0.99	1.006	1.97	1.32	1.008	14.6	0.17
B06	0.11	0.58	0.99	1.001	1.999	1.27	1.75	14.32	0.13
C05	0.39	0.63	0.989	1.005	1.96	1.498	1.005	12.99	0.11
C06	0.49	0.77	0.99	1.004	1.67	1.92	1.02	11.93	0.08
C09	0.58	0.98	0.87	1.76	1.44	1.31	1.4	10.3	NaN
C10	0.80	0.75	0.97	1.003	1.17	1.39	1.00003	12.56	0.26











Observações-2º teste

- 50 popsize 50 maxiter
- Primeiro foi feita uma aproximação para o valor de V_0 com 8 parâmetros.
- Parametros e bounds:
 - $\alpha = 20,60$
 - $r = 0,1,10$
 - $\delta = (0,01,2)$
 - $\mu_c = (0,1,2)$
 - $\rho = (1,15)$
 - $\theta = (1,2)$
 - $\sigma = (1,2)$
 - $c = (10,25)$
- Com os resultados dessa DE foi realizado uma nova DE para 8 dias, com 5 parametros
- Parametros e bounds:
 - $\epsilon_r = (0,1,0,99)$
 - $\epsilon_\alpha = (0,1,0,99)$
 - $\epsilon_s = (0,1,0,99)$
 - $k_t = (1,2)$
 - $k_c = (1,2)$

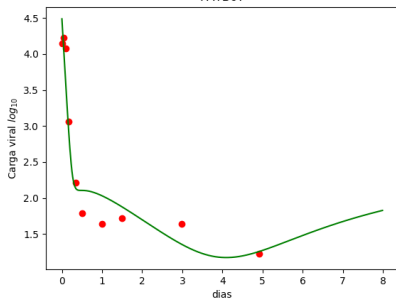
Table: Parametros da primeira DE

Pat	α	r	δ	μ_c	ρ	θ	σ	c	custo
B07	50.79	0.29	1.44	1.63	5.54	1.35	1.09	19.75	5e-4
B09	47.43	1.31	1.35	1.57	7.18	1.45	1.19	17.68	1.8e-5
B08	21.9	0.49	0.63	1.41	10.27	1.69	1.01	10.3	4.6e-5
B16	23.77	2.86	1.72	0.83	3.07	1.6	1.69	16.12	1e-5
B17	57.22	1.07	1.77	1.67	13.27	1.36	1.36	15.67	1e-4
B06	39.75	1.27	1.74	0.68	13.90	1.33	1.42	16.92	3e-5
C05	24.73	1.91	1.25	0.96	5.47	1.31	1.55	22.57	3.7e-5
C06	24.07	2.26	1.18	0.9	7.69	1.31	1.8	11.98	9.4e-6
C09	31.31	3.24	1.73	0.61	1.07	1.32	1.09	13.9	6e-6
C10	29.22	0.43	1.48	1.28	13.72	1.99	1.55	14.45	1e-4

Table: Parametros da segunda DE

Pat	ϵ_r	ϵ_α	ϵ	k_t	k_c	custo
B07	0.101	0.50	0.989	1.619	1.00256	0.089
B09	0.1012	0.10019	0.86299	1.794	1.00068	0.126
B08	0.7721	0.351	0.9493	1.975	1.0000798	0.43
B16	0.76302	0.1581	0.98998	1.674	1.00028	0.115
B17	0.1368	0.76906	0.99	1.288	1.000387	0.18
B06	0.14967	0.907	0.989998	1.82337	1.015466	0.17
C05	0.63786	0.59112	0.99	1.512404	1.02000231	0.22
C06	0.151131	0.88774	0.989981	1.834885	1.00345041	0.14
C09	0.64851	0.32033	0.11904	1.38158	1.720207	NaN
C10	0.16384	0.62968	0.93021	1.762558	1.00043	0.676

PATB07



PATB09

