

Model1	Parameter Distance $D_{\text{param}}$	p-value for parameter predictions	Protein Distance $D_{\text{prot}}$	p-value for protein time-course predictions	Score	Bayesian	Decompose Network	Selection of data	Sampling
orangeballs	0.0229	3.25E-03	0.002438361	1.21E-25	27.4	no	yes	Game Tree	Sequential local search
2	0.8404	1.00E+00	0.016023721	3.39E-18	17.5	no	no	Manual based on parameter uncertainty	Global method
3	0.1592	6.00E-01	0.035404398	4.45E-15	14.6	yes	no	Manual	LH
4	0.0899	1.88E-01	0.047495432	6.28E-14	13.9	no	yes	Manual	LM +Particle Swarm
5	0.1683	6.45E-01	0.09791128	4.01E-11	10.6	yes	no	Train+Sim	UKF
6	0.0453	1.37E-02	0.198785197	1.93E-08	9.6	no	no	A-Criterion	Local (LM)
7	0.1702	6.45E-01	0.362463945	2.90E-06	5.7	no	yes	Sensitivity analysis	Hybrid (Local +Global)
8	0.8128	1.00E+00	0.356429217	2.53E-06	5.6	yes	no	Estimation of improved uncertainty	Global (MH)
9	0.3766	9.99E-01	0.817972877	1.34E-03	2.9	yes	yes	MI	ABC-SMC
10	0.0699	9.83E-02	19.32326868	1.00E+00	1.0	no	yes	Minimize variance based on FI	Multistart local search
11	0.1883	7.29E-01	3.222767988	6.90E-01	0.3	no	no	Train+Sim	LH+DE
12	5.0278	1.00E+00	14.77443631	1.00E+00	0.0	no	no	Manual	Local method

**Table 2 Scores and features of Parameter Inference Challenge** Table for Model 1 of the Parameter Inference Challenge contains anonymized teams (except for best performer) ordered by Score rank, indicated are the parameter distance and associated p-value, protein distance and associated p-value and the score. The last four gray columns indicate the features of the fitting strategies used by the participants. Key for the features: *ABC-SMC*, Approximate Bayesian Computation with Sequent Monte Carlo; *DE*, Differential Evolution; *FI*, Fisher Information; *LH*, Latin Hypercube; *LM*, Livenberg-Marquardt; *MH*, Metropolis Hastings; *MI*, Maximize Mutual Information between parameters and output of experiments; *Train+Sim*, iterative steps of training to data and simulation to find most informative experiments; *Rank* rank according to price experiments in top 10% of the A-Criterion (trace of the covariance matrix); *UKF*, Unscented Kalman Filtering.