

Statistical Challenges in Tracking the Evolution of SARS-CoV-2

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SUPPLEMENTARY MATERIAL

TABLE S1
Web URLs of phylodynamic method implementations for SARS-CoV-2 studies in Table 1.

Method	Implementation	Web URL
SMC	annealedSMC	https://github.com/liangliangwangsfu/annealedSMC
Online Bayesian phylodynamics	BEAST 1.10	https://beast.community/online_inference
VI for phylogenetics	bito	https://github.com/phylovi/bit0
BDSP	BDSKY in BEAST2	https://github.com/BEAST2-Dev/bdsky
Structured BDSP	bdmm in BEAST2	https://github.com/denisekuehnert/bdmm
Coalescent	PhyDyn in BEAST2	https://github.com/mrc-ide/PhyDyn
Coalescent	LNaphyloDyn	https://github.com/MingweiWilliamTang/LNaphyloDyn
Parametric N_e, λ	NA	NA
Nonparametric $N_e, \lambda = \exp(\beta_0)N_e^{\beta_1}$	phylodyn in R	https://github.com/mdkarcher/phylodyn
Epoch Skyline plot (Nonparametric N_e, λ)	BESP in BEAST2	https://github.com/laduplessis/besp
AdaPref (Nonparametric $N_e, \lambda = \beta N_e$)	adaPref in R	https://github.com/lorenzocapp/adapref
Nonparametric $N_e, \lambda = \exp(\beta_0)N_e^{\beta_1} + (\beta' \mathbf{X}(t))_{t \geq 0}$	BEAST	https://beast.community/