

<u>Task</u>	<u>Test</u>	Site strategy	Branch strategy	<u>Complexity</u>	Effective sample size	<u>Parallelization</u>	Practical # sequences limit
Gene-wide selection	BUSTED	Random Effects	Random Effects	Fixed	~sites x taxa	SMP	~2,000
Site-level selection / episodic	MEME	Fixed Effects	Random Effects	Fixed	~ taxa	SMP/MPI	~25000 (cluster)
Site-level selection / pervasive	FEL	Fixed Effects	Fixed Effects	Fixed	~ taxa	SMP/MPI	~25000 (cluster)
Branch-level selection	aBSREL	Random Effects	Fixed Effects	Adaptive	~ sites	SMP/MPI	~ 1,000
Compare selective regimes between sets of branches	RELAX	Random Effects	Mixed Effects	Fixed	~sites x (branch set size)	SMP	~ 1,000
Compare selective pressure between sets of branches on individual sites	Contrast-FEL	Fixed Effects	Fixed Effects	Fixed	~ branch set	SMP/MPI	~25000 (cluster)