

a)					b)															
					Method							Summary								
					Inferable trajectory types							Aggregated scores per experiment								
					Priors required	Wrapper type	Platform	Topology inference	Cycle	Linear	Bifurcation	Multifurcation	Tree	Connected	Disconnected	Overall	Accuracy	Scalability	Stability	Usability
Graph methods					×	Traj	Python	Free												
RaceID / StemID						Proj	R	Free												
SLICER					×	Cell	R	Free												
Tree methods																				
Slingshot						Traj	R	Free												
PAGA Tree					×	Traj	Python	Free												
MST						Proj	R	Free												Off-the-shelf
pCreode						Proj	Python	Free												
Monocle DDRTree						Cell	R	Free												
SCUBA						Cluster	Python	Free												
Monocle ICA					×	Cell	R	Param												
SLICE						Traj	R	Free												
cellTree maptpx						Cell	R	Free												
Sincell						Cell	R	Free												
EIPiGraph						Traj	R	Free												
cellTree VEM						Cell	R	Free												
URD					×	Traj	R	Free												
CellTrails						Cell	R	Free												
CellRouter					×	Cell	R	Free												
Mpath					✖	Cluster	R	Free												
Multifurcation methods																				
STEMNET					✖	Prob	R	Param												
FateID					✖	Prob	R	Param												
MFA					×	Prob	R	Param												
GPfates					×	Prob	Python	Param												
Bifurcation methods																				
DPT						Traj	R	Fixed												
Wishbone					×	Traj	Python	Param												
Linear methods																				
SCORPIUS						Linear	R	Fixed												
Component 1						Linear	R	Fixed												Off-the-shelf
TSCAN						Linear	R	Fixed												
MATCHER						Linear	Python	Fixed												
Embeddr						Linear	R	Fixed												
Wanderlust					×	Linear	Python	Fixed												
Waterfall						Linear	R	Fixed												
EIPiGraph linear						Traj	R	Fixed												
PhenoPath						Linear	R	Fixed												
topslam					×	Linear	Python	Fixed												
FORKS						Linear	Python	Fixed												
ouijaflow						Linear	Python	Fixed												
Cyclic methods																				
Angle						Cycle	R	Fixed												Off-the-shelf
EIPiGraph cycle						Traj	R	Fixed												
reCAT						Cycle	R	Fixed												

**Prior information required**

- None
- × Weak: Start or end cells
- ✖ Strong: Cell grouping or time course