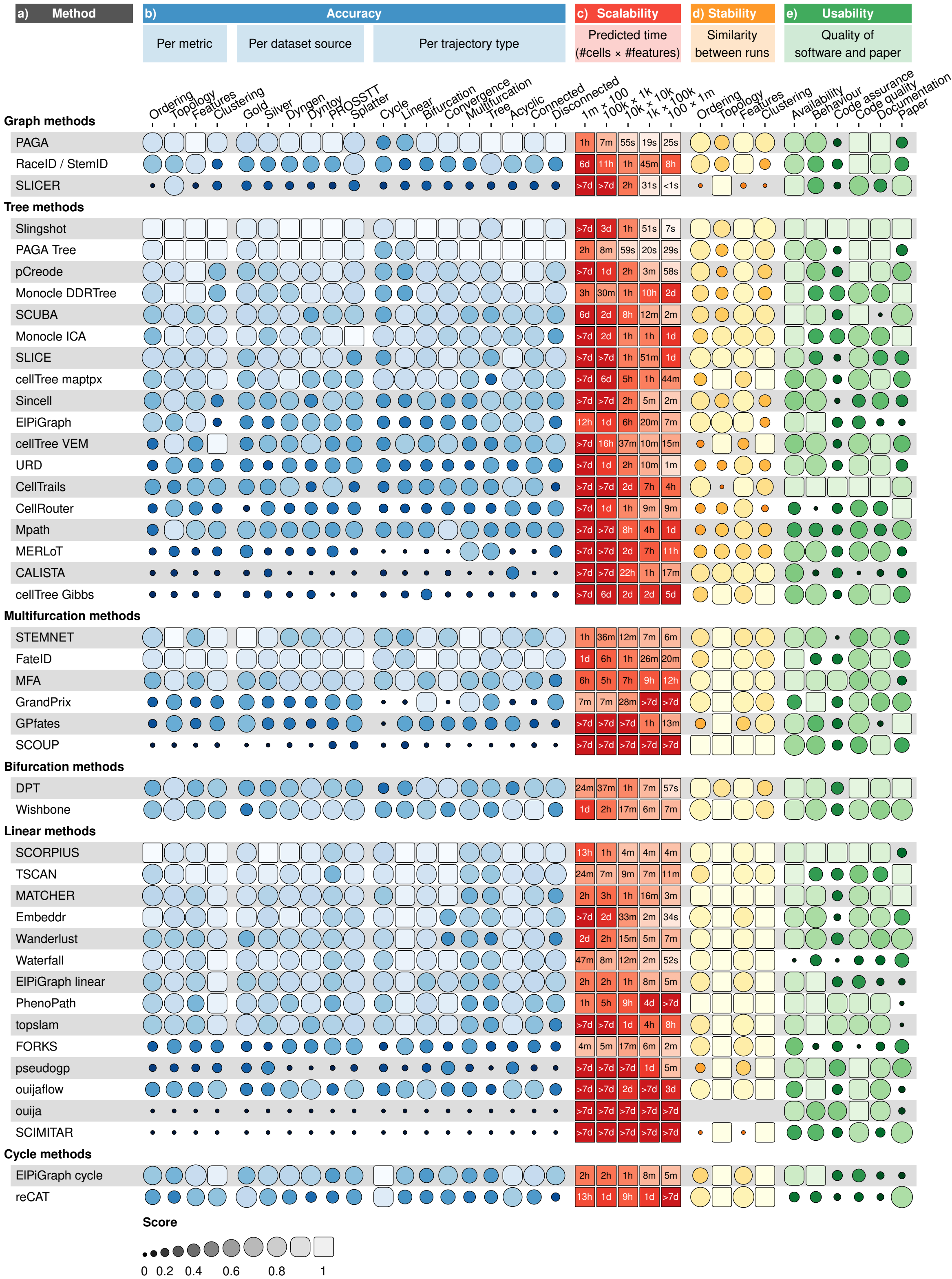
a) Method
b) Accuracy
Per metric
Per dataset source
Per trajectory type
c) Scalability
Predicted time (#cells × #features)
d) Stability
Similarity between runs
e) Usability
Quality of software and paper
Ordering
Topology
Features
Clustering
Gold
Silver
Dyngen
Dyntoy
PROSSTT
Splatter
Cycle
Linear
Bifurcation
Convergence
Multifurcation
Tree
Acyclic
Connected
Disconnected
1m × 100
100k × 1k
10k × 10k
1k × 100k
100 × 1m
Ordering
Topology
Features
Clustering
Availability
Behaviour
Code assurance
Code quality
Documentation
Paper
Graph methods
PAGA 1h 7m 55s 19s 25s
RaceID / StemID 6d 11h 1h 45m 8h
SLICER >7d >7d 2h 31s <1s
Tree methods
Slingshot >7d 3d 1h 51s 7s
PAGA Tree 2h 8m 59s 20s 29s
pCreode >7d 1d 2h 3m 58s
Monocle DDRTree 3h 30m 1h 10h 2d
SCUBA 6d 2d 8h 12m 2m
Monocle ICA >7d 2d 1h 1h 1d
SLICE >7d >7d 1h 51m 1d
cellTree maptpx >7d 6d 5h 1h 44m
Sincell >7d >7d 2h 5m 2m
ElPiGraph 12h 1d 6h 20m 7m
cellTree VEM >7d 16h 37m 10m 15m
URD >7d 1d 2h 10m 1m
CellTrails >7d >7d 2d 7h 4h
CellRouter >7d 1d 1h 9m 9m
Mpath >7d >7d 8h 4h 1d
MERLoT >7d >7d 2d 7h 11h
CALISTA >7d >7d 22h 1h 17m
cellTree Gibbs >7d 6d 2d 2d 5d
Multifurcation methods
STEMNET 1h 36m 12m 7m 6m
FateID 1d 6h 1h 26m 20m
MFA 6h 5h 7h 9h 12h
GrandPrix 7m 7m 28m >7d >7d
GPfates >7d >7d >7d 1h 13m
SCOUP >7d >7d >7d >7d >7d
Bifurcation methods
DPT 24m 37m 1h 7m 57s
Wishbone 1d 2h 17m 6m 7m
Linear methods
SCORPIUS 13h 1h 4m 4m 4m
TSCAN 24m 7m 9m 7m 11m
MATCHER 2h 3h 1h 16m 3m
Embeddr >7d 2d 33m 2m 34s
Wanderlust 2d 2h 15m 5m 7m
Waterfall 47m 8m 12m 2m 52s
ElPiGraph linear 2h 2h 1h 8m 5m
PhenoPath 1h 5h 9h 4d >7d
topslam >7d >7d 1d 4h 8h
FORKS 4m 5m 17m 6m 2m
pseudogp >7d >7d >7d 1d 5m
ouijaflow >7d >7d 2d >7d 3d
ouija >7d >7d >7d >7d >7d
SCIMITAR >7d >7d >7d >7d >7d
Cycle methods
ElPiGraph cycle 2h 2h 1h 8m 5m
reCAT 13h 1d 9h 1d >7d
Score
0 0.2 0.4 0.6 0.8 1