

Identity-by-descent (IBD):

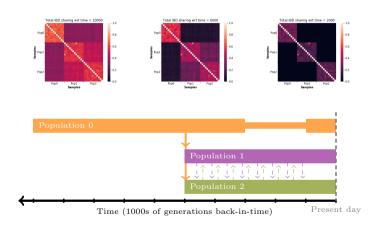
Which segments came from the same ancestral chromosome?

Local ancestry (LA):

Which segments came from ancestors in a given population?

These relationships can be extracted efficiently from simulated and real genetic datasets stored as tree sequences.

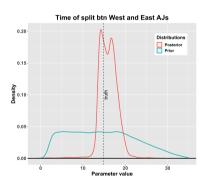
IBD can be extracted from tree sequences



- Powerful: even small IBD segments are detectable
- Fast: $\approx 8 \text{ sec on a laptop}$

Future work: what analyses are now possible?

- Analysis of Biobank datasets
- Simulation-based inference



See me at poster #32!



https://tskit.readthedocs.io/