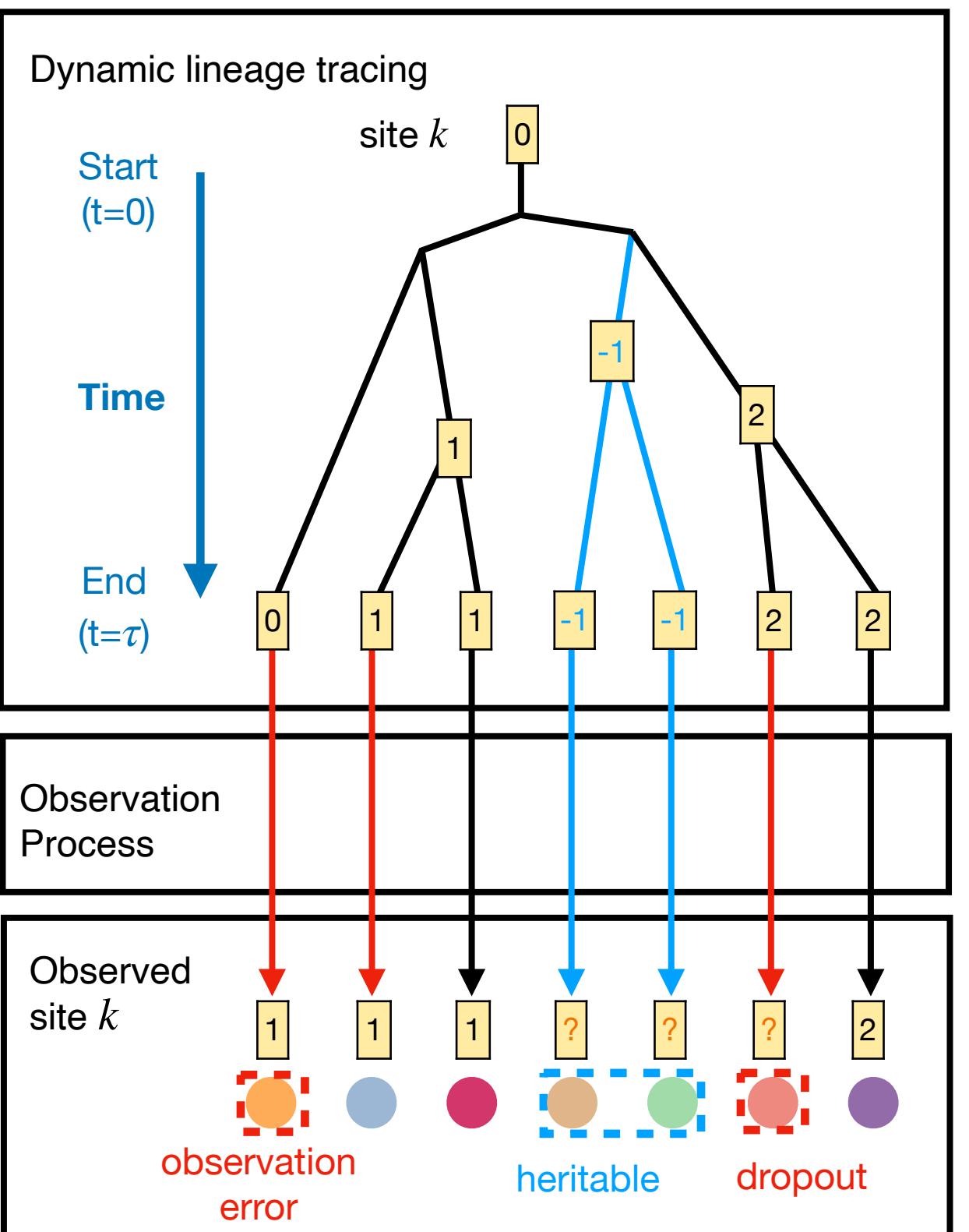


# LAML2

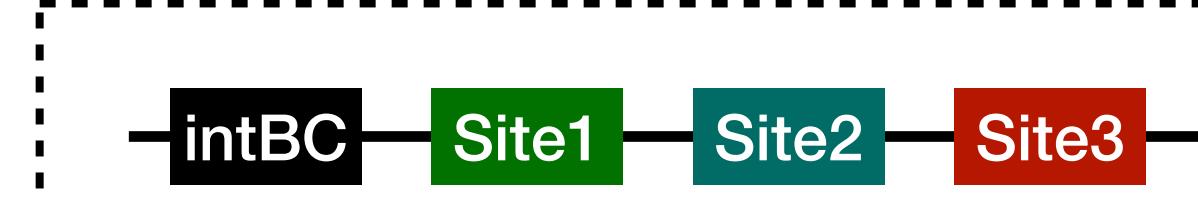
maximum likelihood tree inference  
 $\max_{T, \Theta} \log L(T, \Theta; D)$

calculate  $L(T, \Theta; D)$  under the PMM

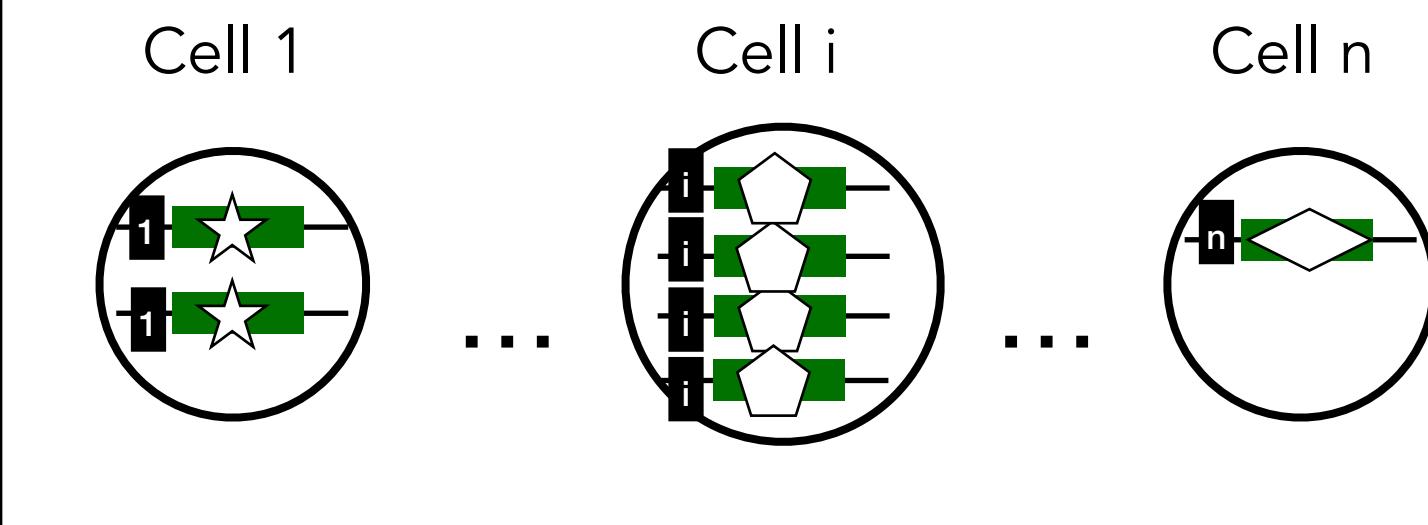


## Errors in the Observation Process

Example lineage tracing system



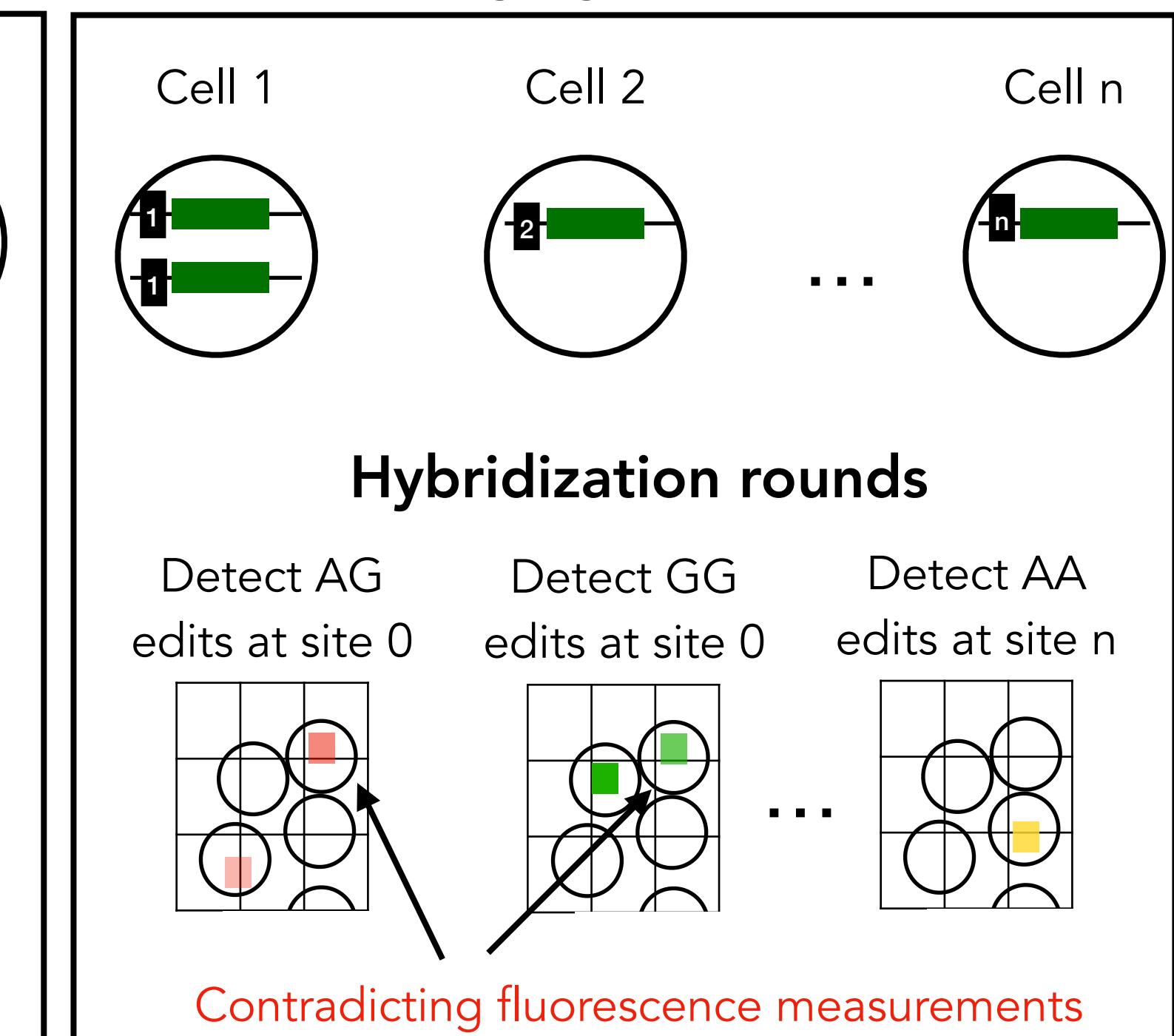
### Sequencing-based



### Lysis & Isolation

Transcript is misclassified as belonging to cell n during isolation

### Imaging-based



Detect AG edits at site 0

Detect GG edits at site 0

Detect AA edits at site n

Contradicting fluorescence measurements confound edit detection