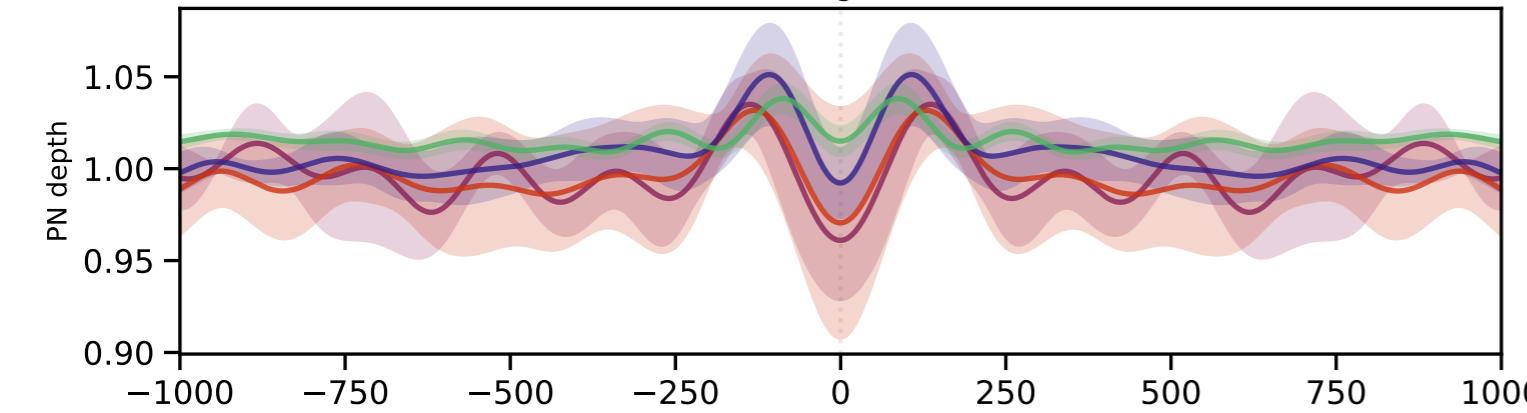
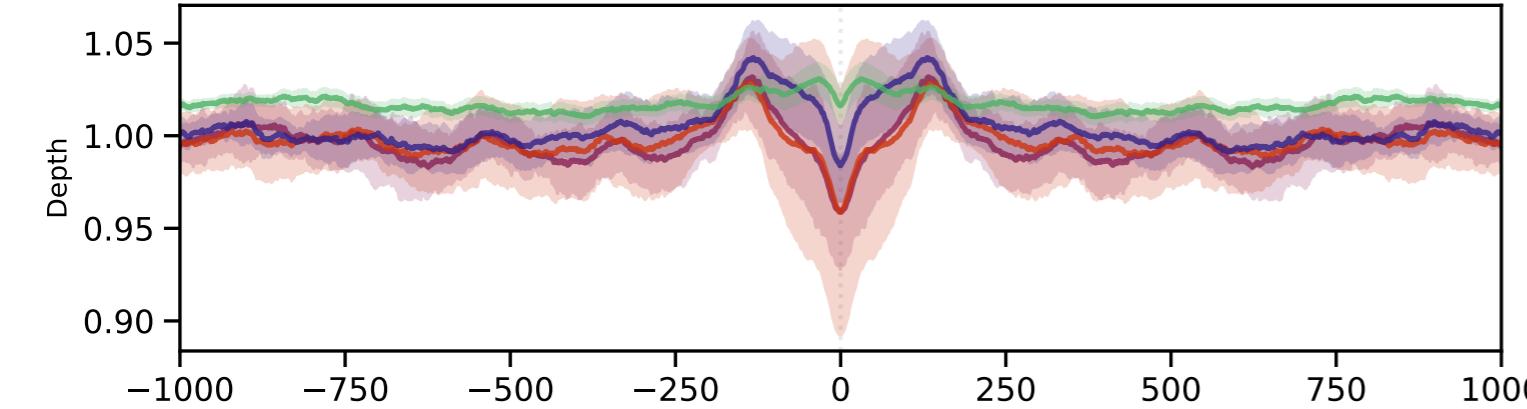


## Fragment Coverage Signals

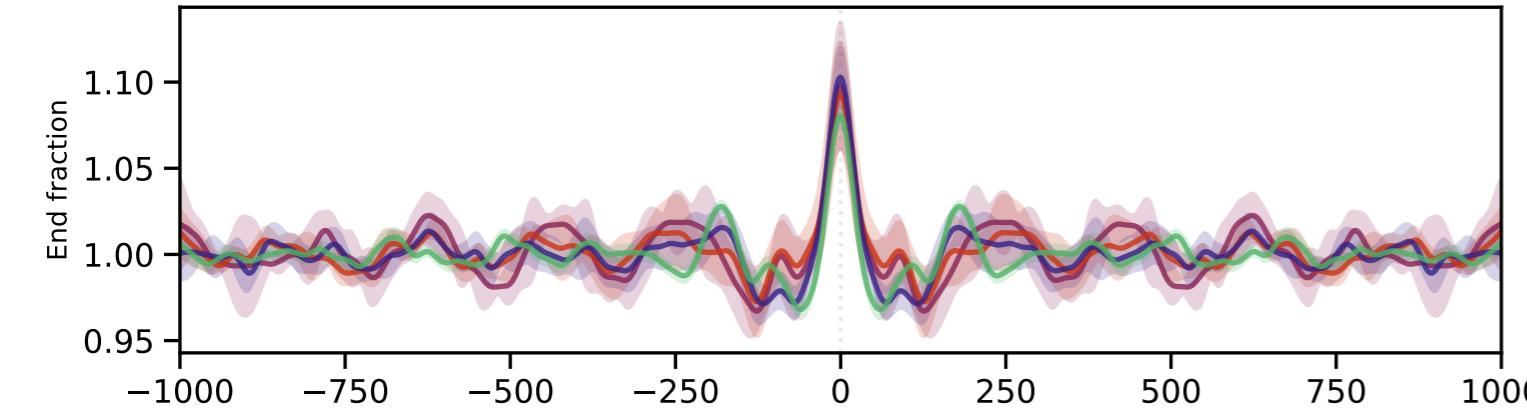
Phased Nucleosomal Signal (Flank-Normalized)



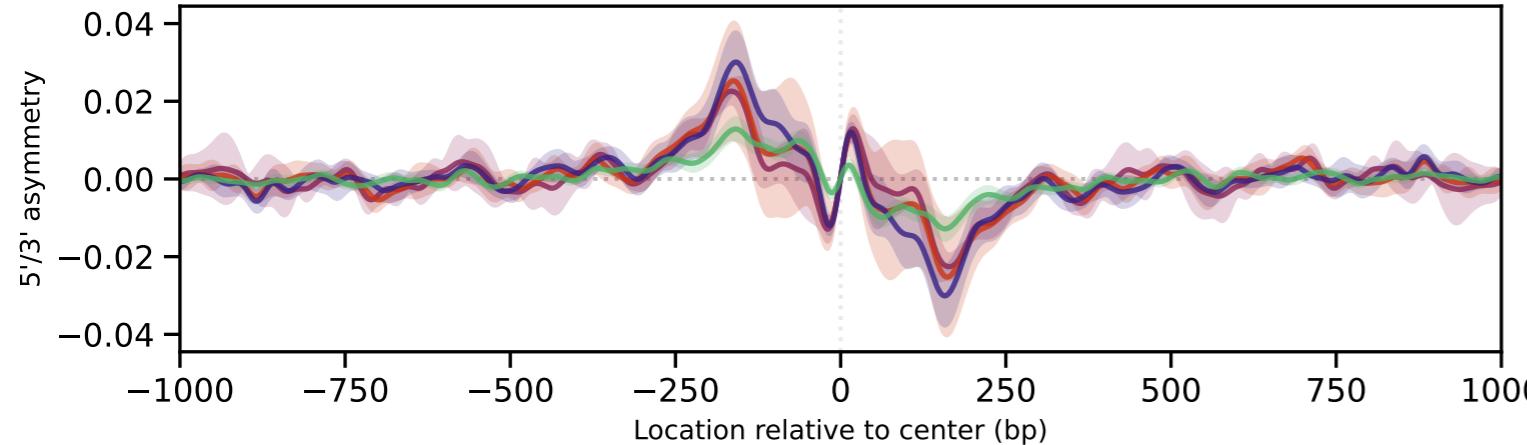
Coverage (GC-Corrected, Flank-Normalized)



Fragment End Coverage (Flank-Normalized, Smoothed)

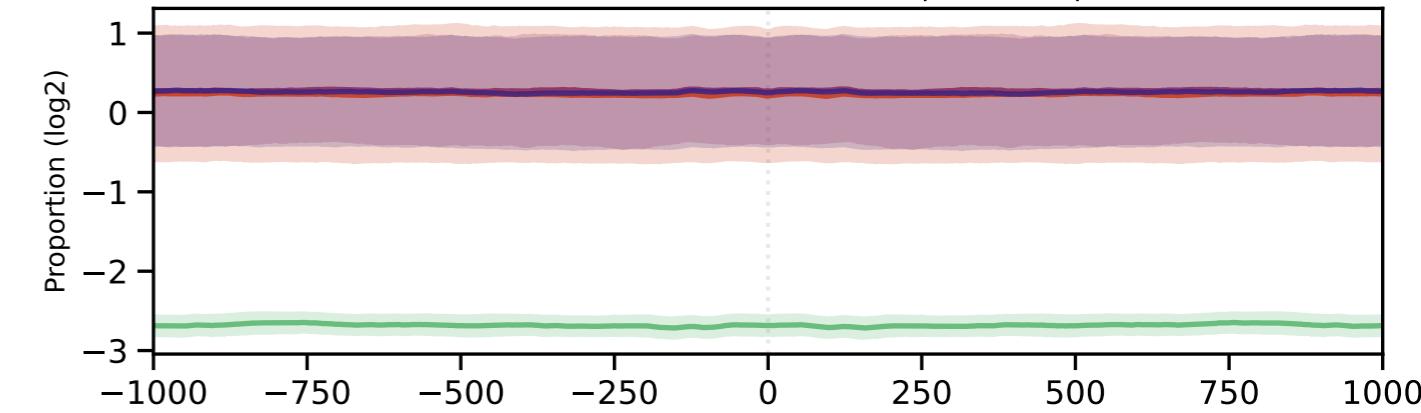


Fragment End Orientation (Smoothed)

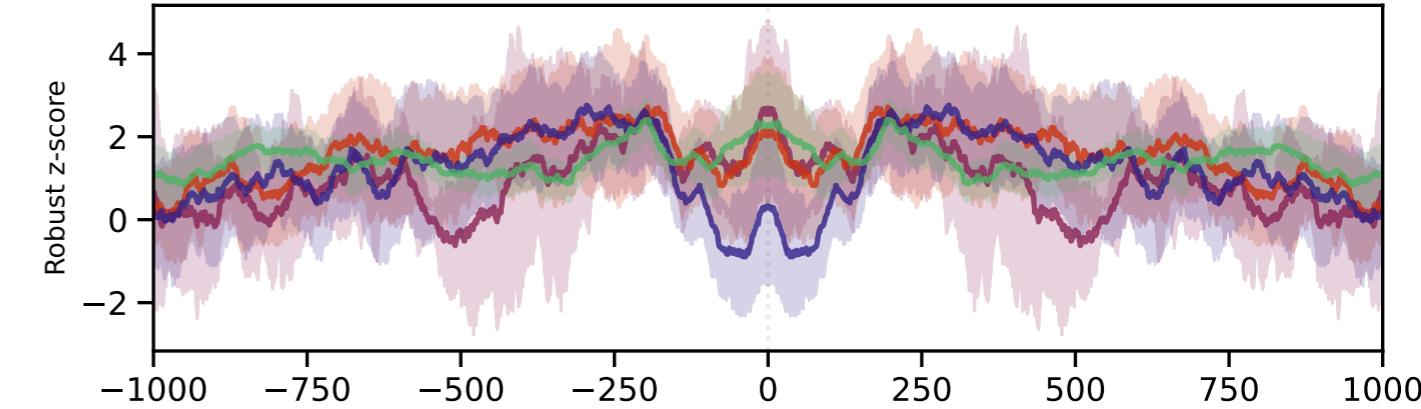


## Fragment Length-Derived Signals

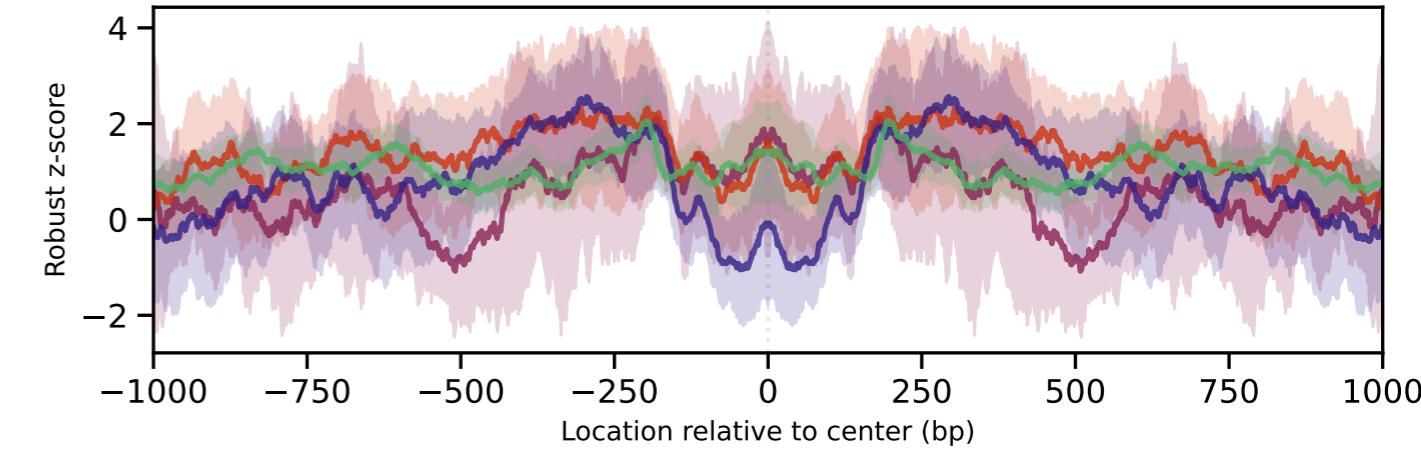
FL Subnucleosomal Ratio ( $<147\text{bp}/>=147\text{bp}$ )



FL Shannon Entropy (Pielou's Evenness)



FL Gini-Simpson Index



ATOH1+NEUROD1  
NEUROD1  
ASCL1  
Healthy

