## **Shift Z-score for pfalciparum** shuffled hmm Z-score 0.5 Average 0.0 -0.5 -200-100100 200-200 -100200-200 -100100 0 100 200 Position around TSS (bp) Average Z-score 0.5 0.0 -0.5 -200-100100 200 Position around TSS (bp) Absolute difference value Difference between raw and hmm shapes -200-100100 200 Position around TSS (bp)