Stretch Z-score for hsapiens shuffled hmm Z-score 0.2 0.0 Average 4.0.2 Average 4.0.4 -200-100100 200-200 -100200-200 -100100 100 200 Position around TSS (bp) source — hmm — raw Z-score 0.2 0.0 Average –0.2 –0.4 -200-100100 200 Position around TSS (bp) Absolute difference value Difference between raw and hmm shapes -200 100 200 Position around TSS (bp)