Opening Z-score for celegans shuffled hmm Z-score 0.4 0.2 Average 0.0 -0.2 -100-200-100100 200-200 100 200-200 -100100 0 200 Position around TSS (bp) source — hmm — raw Z-score 0.4 0.2 Average. 0.0 -0.2 -100 -200200 100 Position around TSS (bp) Absolute difference value Difference between raw and hmm shapes 0.4 0.3 0.2 0.0 -200100 200 Position around TSS (bp)