Roll Z-score for athaliana Average Z-score shuffled hmm 100 -200-100100 200-200 -100100 200-200 -1000 200 Position around TSS (bp) source — hmm — raw — shuffled Average Z-score -200 -100100 200 Position around TSS (bp) Absolute difference value Difference between raw and hmm shapes -200-100100 200 Position around TSS (bp)