Stereographic Projection Sampler vs Random Walk Metropolis on Bimodal Distribution (n=10,000) SPS - Trace Plot (n=10,000) SPS - Histogram (n=10,000, Accept: 40.4%) True Distribution 0.25 6 0.20 Density Value 0.10 **-**2 Initial: 0.0 0.05 Mode 1: -4 Mode 2: 3 -6 0.00 2000 6000 8000 10000 4000 -8 -6 Iteration RWM (small step 0.5) - Trace Plot (n=10,000) RWM (small step) - Histogram (n=10,000, Accept: 85.2%) Initial: 0.0 True Distribution 6 0.20 Mode 1: -4 4 Mode 2: 3 0.15 Density 0.10 Value 0.05 -6 0.00 2000 4000 6000 8000 10000 -8 -6 2 Iteration RWM (large step 2.0) - Trace Plot (n=10,000) RWM (large step) - Histogram (n=10,000, Accept: 51.2%) 7.5 Initial: 0.0 True Distribution 0.25 Mode 1: -4 5.0 Mode 2: 3 0.20 2.5 Density 0.15 Value 0.0 0.10 -2.5-5.00.05 -7.50.00 2000 4000 8000 10000 6000 2 -8 Iteration