x variance vs x time step N=100 Particle Filter N=300 Particle Filter 0.175 N=500 Particle Filter N=1000 Particle Filter 0.150 N=1500 Particle Filter N=3000 Particle Filter 0.125 x variance 0.100 -0.075 0.050 0.025 0.000 20 40 60 80 100 Time step