ACPE and Criticality By Comparison Index In Merge Sort 0.25 Comparison Without Fault Comparison With Fault **Average Conditional** 0.245 Positional Error 0.245 0.235 0.235 0.225 0.22 0.04 Positional Error Criticality Background Failure Rate = 0% Background Failure Rate = 10% 0.035 Background Failure Rate = 20% 0.03 0.025 0.02 0.015 0.01 0.005 0 0.4 Background Failure Rate = 0% Background Failure Rate = 10% Background Failure Rate = 20% Maximum Displacement 0.35 **Error Criticality** 0.3 0.25 0.2 0.15 0.1 0.05 0 50 100 150 200 250 Comparison Index