**BSSA2014 Log-Normal Comparision** 0.6 1s SA Mean = 0.490.5 0 km < rJB < 70 kmDensity 0.4 6.5 < Mw < 70.2 0.1 0 0.6 Mean = 0.492s SA 0.5 0 km < rJB < 70 kmensity 0.4 0.3 6.5 < Mw < 0.2 0.1 0 - 2 0 + 2 0.6 3s SA Mean = 0.390.5 0 km < rJB < 70 kmDensity 0.4 6.5 < Mw < 70.2 0.1 0 0.6 5s \$A Mean = 0.010.5 0 km < rJB < 70 kmDensity 6.5 < Mw <0.3 0.2 0.1 0 0 0.6 10s SA Mean = -0.420.5 0 km < rJB < 70 km**Sensity** 0.4 0.3 6.5 < Mw <0.2 0.1 0 -3 0 2 3 -2 z-score (Standard Deviations) ■RSQSim — Standard Normal - Mean

DATASET #1 (line: Histogram, width=1.0; color: 128,128,128) RSQSim

DATASET #2 (line: Solid, width=2.0; color: 0,0,0)

Standard Normal

DATASET #3 (line: Dashed, width=3.0; color: 0,0,255)

Mean

DATASET #4 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #5 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #6 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #7 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #8 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #9 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #10 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #11 (line: Histogram, width=1.0; color: 128,128,128) RSQSim

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DATASET #12 (line: Solid, width=2.0; color: 0,0,0)

Standard Normal

DATASET #13 (line: Dashed, width=3.0; color: 0,0,255)

Mean

DATASET #14 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #15 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #16 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #17 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #18 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #19 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #20 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #21 (line: Histogram, width=1.0; color: 128,128,128)

RSQSim

DATASET #22 (line: Solid, width=2.0; color: 0,0,0)

Standard Normal

DATASET #23 (line: Dashed, width=3.0; color: 0,0,255)

Mean

DATASET #24 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #25 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #26 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #27 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #28 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #29 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #30 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #31 (line: Histogram, width=1.0; color: 128,128,128)

RSQSim

DATASET #32 (line: Solid, width=2.0; color: 0,0,0)

Standard Normal

DATASET #33 (line: Dashed, width=3.0; color: 0,0,255)

Mean

DATASET #34 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #35 (line: Dotted, width=1.0; color: 0,150,0) DATASET #36 (line: Dotted, width=1.0; color: 0,150,0) DATASET #37 (line: Dotted, width=1.0; color: 0,150,0) DATASET #38 (line: Dotted, width=1.0; color: 0,150,0) DATASET #39 (line: Dotted, width=1.0; color: 0,150,0) DATASET #40 (line: Dotted, width=1.0; color: 0,150,0) DATASET #41 (line: Histogram, width=1.0; color: 128,128,128) RSQSim DATASET #42 (line: Solid, width=2.0; color: 0,0,0) Standard Normal

DATASET #43 (line: Dashed, width=3.0; color: 0,0,255)

Mean

DATASET #44 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #45 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #46 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #47 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #48 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #49 (line: Dotted, width=1.0; color: 0,150,0)

DATASET #50 (line: Dotted, width=1.0; color: 0,150,0)