

NSGAIISudy

February 18, 2016

1 Tables

Table 1: HV. Mean and standard deviation

	NSGAIa	NSGAIb	NSGAIc	NSGAIId
ZDT1	$6.60e-01_{2.5e-04}$	$6.60e-01_{2.3e-04}$	$6.60e-01_{3.4e-04}$	$6.59e-01_{4.0e-04}$
ZDT2	$3.27e-01_{2.8e-04}$	$3.27e-01_{3.0e-04}$	$3.26e-01_{3.7e-04}$	$3.26e-01_{4.0e-04}$
ZDT3	$5.16e-01_{1.3e-04}$	$5.15e-01_{1.7e-04}$	$5.15e-01_{2.0e-04}$	$5.15e-01_{5.6e-04}$
ZDT4	$6.58e-01_{2.0e-03}$	$6.55e-01_{5.2e-03}$	$6.55e-01_{3.8e-03}$	$6.49e-01_{3.0e-02}$
DTLZ1	$5.88e-01_{2.6e-01}$	$6.79e-01_{1.7e-01}$	$6.42e-01_{2.1e-01}$	$5.74e-01_{2.6e-01}$
WFG2	$5.55e-01_{2.4e-03}$	$5.54e-01_{2.4e-03}$	$5.54e-01_{2.3e-03}$	$5.54e-01_{2.4e-03}$

Table 2: HV. Median and IQR

	NSGAIla	NSGAIlb	NSGAIlc	NSGAIId
ZDT1	$6.60e-01_{3.0e-04}$	$6.60e-01_{2.4e-04}$	$6.60e-01_{3.9e-04}$	$6.59e-01_{4.8e-04}$
ZDT2	$3.27e-01_{3.3e-04}$	$3.27e-01_{4.8e-04}$	$3.26e-01_{4.4e-04}$	$3.26e-01_{4.6e-04}$
ZDT3	$5.16e-01_{1.1e-04}$	$5.15e-01_{2.8e-04}$	$5.15e-01_{3.5e-04}$	$5.15e-01_{2.0e-04}$
ZDT4	$6.58e-01_{3.7e-03}$	$6.57e-01_{4.0e-03}$	$6.56e-01_{4.3e-03}$	$6.56e-01_{6.2e-03}$
DTLZ1	$7.27e-01_{1.1e-01}$	$7.38e-01_{3.5e-02}$	$7.22e-01_{3.5e-02}$	$7.13e-01_{1.3e-01}$
WFG2	$5.54e-01_{4.5e-03}$	$5.56e-01_{4.7e-03}$	$5.52e-01_{4.6e-03}$	$5.52e-01_{4.8e-03}$

Table 3: SPREAD. Mean and standard deviation

	NSGAIla	NSGAIlb	NSGAIlc	NSGAIId
ZDT1	$3.45e-01_{3.0e-02}$	$3.76e-01_{2.9e-02}$	$3.91e-01_{3.2e-02}$	$4.19e-01_{3.3e-02}$
ZDT2	$3.47e-01_{2.3e-02}$	$3.72e-01_{2.7e-02}$	$3.98e-01_{2.6e-02}$	$4.42e-01_{3.0e-02}$
ZDT3	$7.46e-01_{1.4e-02}$	$7.49e-01_{1.6e-02}$	$7.46e-01_{1.8e-02}$	$7.53e-01_{1.2e-02}$
ZDT4	$3.35e-01_{2.4e-02}$	$4.11e-01_{3.2e-02}$	$4.34e-01_{4.0e-02}$	$5.03e-01_{4.8e-02}$
DTLZ1	$9.02e-01_{1.9e-01}$	$8.84e-01_{1.3e-01}$	$1.01e+00_{2.6e-01}$	$9.19e-01_{1.4e-01}$
WFG2	$7.91e-01_{1.1e-02}$	$7.92e-01_{1.0e-02}$	$7.96e-01_{1.0e-02}$	$7.95e-01_{1.1e-02}$

Table 4: SPREAD. Median and IQR

	NSGAIla	NSGAIlb	NSGAIlc	NSGAIId
ZDT1	$3.47e-01_{5.3e-02}$	$3.74e-01_{4.6e-02}$	$3.96e-01_{4.9e-02}$	$4.23e-01_{4.4e-02}$
ZDT2	$3.47e-01_{2.7e-02}$	$3.74e-01_{3.5e-02}$	$3.99e-01_{2.4e-02}$	$4.48e-01_{4.0e-02}$
ZDT3	$7.46e-01_{2.3e-02}$	$7.50e-01_{2.0e-02}$	$7.42e-01_{1.4e-02}$	$7.53e-01_{2.0e-02}$
ZDT4	$3.28e-01_{3.6e-02}$	$4.09e-01_{4.1e-02}$	$4.42e-01_{6.7e-02}$	$5.05e-01_{5.8e-02}$
DTLZ1	$8.46e-01_{1.6e-01}$	$8.69e-01_{1.3e-01}$	$9.00e-01_{1.6e-01}$	$9.01e-01_{1.5e-01}$
WFG2	$7.93e-01_{1.6e-02}$	$7.94e-01_{1.3e-02}$	$7.97e-01_{1.6e-02}$	$7.95e-01_{1.8e-02}$

Table 5: IGD. Mean and standard deviation

	NSGAIla	NSGAIlb	NSGAIlc	NSGAIId
ZDT1	$9.36e-05_{3.5e-06}$	$9.65e-05_{3.9e-06}$	$9.89e-05_{3.8e-06}$	$1.02e-04_{5.4e-06}$
ZDT2	$9.70e-05_{3.6e-06}$	$1.01e-04_{3.8e-06}$	$1.03e-04_{4.4e-06}$	$1.09e-04_{5.0e-06}$
ZDT3	$6.76e-05_{3.6e-06}$	$6.88e-05_{4.0e-06}$	$6.85e-05_{3.9e-06}$	$1.21e-04_{2.7e-04}$
ZDT4	$1.65e-04_{1.2e-05}$	$2.48e-04_{2.9e-04}$	$2.02e-04_{5.0e-05}$	$3.58e-04_{6.1e-04}$
DTLZ1	$3.15e-03_{3.4e-03}$	$1.99e-03_{2.3e-03}$	$2.63e-03_{3.8e-03}$	$3.29e-03_{3.6e-03}$
WFG2	$1.43e-03_{1.3e-03}$	$1.34e-03_{1.3e-03}$	$1.61e-03_{1.3e-03}$	$1.70e-03_{1.3e-03}$

Table 6: IGD. Median and IQR

	NSGAIla	NSGAIlb	NSGAIlc	NSGAIId
ZDT1	$9.35e-05_{6.3e-06}$	$9.58e-05_{3.9e-06}$	$9.86e-05_{5.8e-06}$	$1.01e-04_{6.9e-06}$
ZDT2	$9.70e-05_{4.8e-06}$	$1.01e-04_{4.9e-06}$	$1.02e-04_{5.4e-06}$	$1.09e-04_{6.5e-06}$
ZDT3	$6.78e-05_{5.1e-06}$	$6.84e-05_{4.1e-06}$	$6.78e-05_{3.5e-06}$	$7.04e-05_{3.8e-06}$
ZDT4	$1.63e-04_{1.5e-05}$	$1.81e-04_{2.4e-05}$	$1.85e-04_{3.3e-05}$	$1.86e-04_{5.6e-05}$
DTLZ1	$1.46e-03_{1.2e-03}$	$1.19e-03_{4.1e-04}$	$1.35e-03_{4.5e-04}$	$1.39e-03_{1.4e-03}$
WFG2	$1.43e-03_{2.7e-03}$	$1.10e-04_{2.7e-03}$	$2.76e-03_{2.7e-03}$	$2.76e-03_{2.7e-03}$

Table 7: EPSILON. Mean and standard deviation

	NSGAIla	NSGAIlb	NSGAIlc	NSGAIId
ZDT1	$1.28e-02_{1.7e-03}$	$1.28e-02_{1.7e-03}$	$1.29e-02_{1.9e-03}$	$1.38e-02_{2.8e-03}$
ZDT2	$1.24e-02_{1.5e-03}$	$1.31e-02_{2.1e-03}$	$1.30e-02_{2.1e-03}$	$1.42e-02_{2.0e-03}$
ZDT3	$8.33e-03_{1.8e-03}$	$8.46e-03_{1.4e-03}$	$8.29e-03_{1.4e-03}$	$1.89e-02_{5.5e-02}$
ZDT4	$1.29e-02_{2.2e-03}$	$1.85e-02_{2.0e-02}$	$1.53e-02_{4.4e-03}$	$2.31e-02_{2.9e-02}$
DTLZ1	$1.20e-01_{8.7e-02}$	$8.84e-02_{6.1e-02}$	$1.08e-01_{9.7e-02}$	$1.28e-01_{9.8e-02}$
WFG2	$4.07e-01_{3.9e-01}$	$3.81e-01_{3.9e-01}$	$4.57e-01_{3.9e-01}$	$4.84e-01_{3.8e-01}$

Table 8: EPSILON. Median and IQR				
	NSGAIa	NSGAIb	NSGAIc	NSGAIId
ZDT1	$1.27e-02_{2.9e-03}$	$1.26e-02_{2.2e-03}$	$1.26e-02_{2.1e-03}$	$1.30e-02_{3.4e-03}$
ZDT2	$1.20e-02_{2.2e-03}$	$1.25e-02_{2.2e-03}$	$1.26e-02_{2.5e-03}$	$1.39e-02_{2.5e-03}$
ZDT3	$8.05e-03_{1.6e-03}$	$8.26e-03_{2.2e-03}$	$8.44e-03_{1.9e-03}$	$8.72e-03_{1.6e-03}$
ZDT4	$1.27e-02_{1.8e-03}$	$1.44e-02_{3.1e-03}$	$1.39e-02_{3.4e-03}$	$1.46e-02_{3.2e-03}$
DTLZ1	$7.74e-02_{6.4e-02}$	$6.60e-02_{2.6e-02}$	$7.68e-02_{2.6e-02}$	$7.51e-02_{7.2e-02}$
WFG2	$4.10e-01_{7.8e-01}$	$2.81e-02_{7.8e-01}$	$7.95e-01_{7.8e-01}$	$7.95e-01_{7.8e-01}$