Constrained Problems Study

January 26, 2020

1 Tables

Table 1: HV. Mean and standard deviation					
	NSGAII	NSGAIISR	NSGAHATM		
ConstrEx	$7.75e - 01_{2.9e-04}$	$6.48e - 01_{2.7e-02}$	$5.15e - 01_{1.1e-02}$		
Tanaka	$3.08e - 01_{4.2e-04}$	$0.00e + 00_{0.0e+00}$	$0.00e + 00_{0.0e+00}$		
Srinivas	$5.38e - 01_{4.0e-04}$	$0.00e + 00_{0.0e+00}$	$2.71e - 01_{1.8e-01}$		
Binh2	$7.24e - 01_{6.4e-04}$	$0.00e + 00_{0.0e+00}$	$7.24e - 01_{6.3e-04}$		
Osyczka2	$7.31e - 01_{4.0e-02}$	$0.00e + 00_{0.0e+00}$	$3.81e - 03_{3.8e-02}$		
Golinski	$9.69e - 01_{2.0e - 04}$	$0.00e + 00_{0.0e+00}$	$0.00e + 00_{0.0e+00}$		

Table 2: HV. Median and IQR

	NSGAII	NSGAIISR	NSGAIIATM
ConstrEx	$7.75e - 01_{4.1e-04}$	$6.50e - 01_{3.6e-02}$	$5.18e - 01_{1.7e-02}$
Tanaka	$3.08e - 01_{5.7e-04}$	$0.00e + 00_{0.0e+00}$	$0.00e + 00_{0.0e+00}$
Srinivas	$5.38e - 01_{4.2e-04}$	$0.00e + 00_{0.0e+00}$	$3.02e - 01_{3.3e-01}$
Binh2	$7.24e - 01_{7.3e-04}$	$0.00e + 00_{0.0e+00}$	$7.24e - 01_{8.9e-04}$
Osyczka2	$7.42e - 01_{3.1e-02}$	$0.00e + 00_{0.0e+00}$	$0.00e + 00_{0.0e+00}$
Golinski	$9.69e - 01_{1.8e-04}$	$0.00e + 00_{0.0e+00}$	$0.00e + 00_{0.0e+00}$

Table 3: EPSILON. Mean and standard deviation NSGAII NSGAIISR NSGAIIATM $\begin{array}{l} {\rm NSGAII} \\ 1.58e - 02_{3.3e-03} \\ 8.58e - 03_{1.5e-03} \\ 3.42e + 00_{7.3e-01} \\ 1.01e + 00_{1.8e-01} \\ 1.81e + 01_{1.6e+01} \\ 8.95e + 00_{2.3e+00} \end{array}$ $\begin{array}{l} \text{NSGAIISR} \\ 3.23e - 01_{1.3e-01} \\ 0.00e + 00_{0.0e+00} \end{array}$ $\begin{array}{l} \text{NSGAHAIM} \\ 2.87e - 01_{7.0e-03} \\ 0.00e + 00_{0.0e+00} \\ 7.64e + 01_{6.6e+01} \\ 1.05e + 00_{2.2e-01} \\ 1.12e + 00_{1.1e+01} \\ 0.00e + 00_{0.0e+00} \end{array}$ ConstrEx Tanaka Srinivas Binh2

Table 4: EPSILON. Median and IQR

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	NSGAII	NSGAIISR	NSGAIIATM	
ConstrEx	$1.48e - 02_{3.8e-03}$	$2.89e - 01_{1.6e-01}$	$2.85e - 01_{1.1e-02}$	
Tanaka	$8.17e - 03_{1.5e-03}$	$0.00e + 00_{0.0e+00}$	$0.00e + 00_{0.0e+00}$	
Srinivas	$3.22e + 00_{7.2e-01}$	$0.00e + 00_{0.0e+00}$	$5.74e + 01_{1.2e+02}$	
Binh2	$9.69e - 01_{2.2e-01}$	$0.00e + 00_{0.0e+00}$	$1.02e + 00_{2.6e-01}$	
Osyczka2	$1.56e + 01_{2.2e+01}$	$0.00e + 00_{0.0e+00}$	$0.00e + 00_{0.0e+00}$	
Golinski	$8.42e + 00_{2.6e+00}$	$0.00e + 00_{0.0e+00}$	$0.00e + 00_{0.0e+00}$	

Osyczka2 Golinski