Online Companion for

"Myopic Heuristics for the Random Yield Problem"

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Appendix

Table A1: Stationary Problem (Demand: Normal, Yield: Normal)

ρ_d	ρ_γ	$\frac{p}{p+h}$	Optimal Cost	% above optimal cost			
				MULT	Newsboy	NLH-1	NLH-2
0.2	0.1	0.85	7.0	0.4	0.0	0.0	0.0
		0.90	7.9	0.9	0.0	0.0	0.0
		0.95	9.3	1.8	0.0	0.0	0.0
	0.2	0.85	8.9	5.5	0.0	0.5	0.3
		0.90	10.1	9.1	0.0	0.9	0.5
		0.95	11.9	17.3	0.1	1.6	0.8
	0.3	0.85	11.6	12.0	0.7	1.1	0.5
		0.90	13.3	20.5	1.2	1.8	0.8
		0.95	15.8	41.0	2.5	2.9	1.0
	0.4	0.85	15.1	16.0	4.1	0.9	0.2
		0.90	17.4	28.2	7.0	1.4	0.2
		0.95	21.2	58.7	16.4	2.4	0.0
0.4	0.1	0.85	12.9	0.0	0.0	0.0	0.0
		0.90	14.6	0.0	0.0	0.0	0.0
		0.95	17.1	0.1	0.0	0.0	0.0
	0.2	0.85	14.2	0.8	0.1	0.1	0.0
		0.90	16.0	1.3	0.1	0.2	0.1
		0.95	18.9	2.6	0.1	0.5	0.1
	0.3	0.85	16.3	2.5	0.8	0.2	0.0
		0.90	18.5	4.4	1.1	0.5	0.1
		0.95	22.0	8.8	1.9	1.2	0.1
	0.4	0.85	19.2	4.4	3.9	0.2	0.0
		0.90	22.0	8.0	5.9	0.5	0.0
		0.95	26.6	17.1	12.1	1.4	0.0

Table A2: Stationary Problem (Demand: Normal, Yield: Uniform)

ρ_d	ρ_γ	$\frac{p}{p+h}$	Optimal Cost	% above optimal cost		
				MULT	NLH-1	NLH-2
0.2	0.1	0.85	7.2	1.3	0.2	0.1
		0.90	8.0	2.6	1.0	0.8
		0.95	9.4	3.5	1.4	1.0
	0.2	0.85	9.1	9.5	1.1	1.1
		0.90	10.2	13.9	1.8	1.5
		0.95	11.8	25.7	3.2	2.3
	0.3	0.85	11.8	18.4	2.1	0.7
		0.90	13.2	29.5	3.1	1.5
		0.95	15.1	60.3	6.4	2.7
	0.4	0.85	15.7	21.8	2.2	0.6
		0.90	17.4	40.8	3.3	1.1
		0.95	20.5	82.2	6.7	1.1
0.4	0.1	0.85	12.6	0.2	0.1	0.0
		0.90	14.2	0.2	0.1	0.1
		0.95	16.5	0.4	0.1	0.1
	0.2	0.85	13.8	1.3	0.4	0.0
		0.90	15.5	2.0	0.5	0.5
		0.95	18.0	3.6	1.0	0.6
	0.3	0.85	15.8	2.9	0.4	0.1
		0.90	17.8	5.6	0.5	0.3
		0.95	20.5	10.0	1.4	0.4
	0.4	0.85	18.8	3.0	0.5	0.0
		0.90	20.7	8.7	0.7	0.0
		0.95	24.6	16.6	1.8	0.0

Table A3: Stationary Problem (Demand: Normal, Yield: Beta)

ρ_d	ρ_γ	$\frac{p}{p+h}$	Optimal Cost	% above optimal cost		
				MULT	NLH-1	NLH-2
0.2	0.1	0.85	7.0	0.4	0.0	0.0
		0.90	7.9	0.6	0.4	0.2
		0.95	9.3	1.3	0.6	0.4
	0.2	0.85	8.9	5.6	0.6	0.3
		0.90	10.0	9.4	1.1	0.7
		0.95	11.7	17.4	1.8	1.0
	0.3	0.85	11.4	16.8	2.2	1.2
		0.90	12.7	28.0	3.3	1.7
		0.95	14.5	53.2	5.2	2.2
	0.4	0.85	14.4	31.4	3.7	1.3
		0.90	15.6	52.9	5.5	1.8
		0.95	17.4	103.7	10.3	2.5
0.4	0.1	0.85	12.2	0.2	0.0	0.0
		0.90	13.8	0.3	0.0	0.0
		0.95	16.2	0.4	0.2	0.0
	0.2	0.85	13.4	0.7	0.0	0.0
		0.90	15.2	1.2	0.2	0.1
		0.95	17.6	2.3	0.4	0.1
	0.3	0.85	15.4	3.1	0.4	0.1
		0.90	17.3	5.3	0.9	0.3
		0.95	20.0	9.9	1.7	0.3
	0.4	0.85	18.0	5.4	0.8	0.0
		0.90	19.9	10.8	1.7	0.0
		0.95	22.5	21.9	3.3	0.1

Table A4: Stationary Problem (Demand: Uniform, Yield: Normal)

ρ_d	ρ_γ	$\frac{p}{p+h}$	Optimal Cost	% above optimal cost		
				MULT	NLH-1	NLH-2
0.2	0.1	0.85	6.8	0.0	0.0	0.0
		0.90	7.5	0.4	0.0	0.0
		0.95	8.4	4.1	0.3	0.1
	0.2	0.85	8.8	2.9	0.5	0.2
		0.90	9.9	7.3	1.1	0.6
		0.95	11.4	24.3	2.7	1.6
	0.3	0.85	11.5	8.3	1.3	0.7
		0.90	13.1	17.4	2.2	1.0
		0.95	15.4	48.5	3.8	1.5
	0.4	0.85	14.5	11.7	1.2	0.4
		0.90	16.6	24.2	1.7	0.5
		0.95	20.1	64.5	2.5	0.2
0.4	0.1	0.85	12.3	0.0	0.0	0.0
		0.90	13.3	0.0	0.0	0.0
		0.95	14.5	0.5	0.1	0.0
	0.2	0.85	13.8	0.2	0.0	0.0
		0.90	15.1	0.8	0.2	0.0
		0.95	17.1	5.1	1.5	0.7
	0.3	0.85	16.0	1.0	0.2	0.0
		0.90	17.8	3.3	0.7	0.1
		0.95	20.7	13.0	2.4	0.9
	0.4	0.85	18.6	2.0	0.3	0.1
		0.90	21.0	5.7	0.9	0.3
		0.95	25.1	20.2	1.8	0.5

Table A5: Stationary Problem (Demand: Uniform, Yield: Uniform)

ρ_d	ρ_γ	$\frac{p}{p+h}$	Optimal Cost	% above optimal cost		
				MULT	NLH-1	NLH-2
0.2	0.1	0.85	6.9	0.0	0.0	0.0
		0.90	7.6	0.7	0.0	0.0
		0.95	8.4	5.6	0.5	0.3
	0.2	0.85	8.9	4.3	0.9	0.7
		0.90	9.9	10.1	1.8	1.1
		0.95	11.1	31.5	3.7	2.2
	0.3	0.85	11.6	12.6	2.2	1.3
		0.90	12.9	25.4	3.7	1.9
		0.95	14.6	66.7	6.7	3.0
	0.4	0.85	15.2	18.3	1.8	0.7
		0.90	17.0	36.1	3.1	0.9
		0.95	19.6	91.8	6.8	1.1
0.4	0.1	0.85	12.4	0.0	0.0	0.0
		0.90	13.3	0.0	0.0	0.0
		0.95	14.5	0.7	0.3	0.2
	0.2	0.85	13.9	0.3	0.1	0.0
		0.90	15.3	1.3	0.4	0.1
		0.95	17.1	6.9	2.0	1.1
	0.3	0.85	16.2	1.6	0.4	0.1
		0.90	18.0	4.6	1.1	0.3
		0.95	20.4	17.8	3.5	1.4
	0.4	0.85	19.4	3.4	0.4	0.0
		0.90	21.7	8.9	1.4	0.2
		0.95	25.2	29.6	3.6	0.5

Table A6: Stationary Problem (Demand: Uniform, Yield: Beta)

ρ_d	ρ_γ	$\frac{p}{p+h}$	Optimal Cost	% above optimal cost		
				MULT	NLH-1	NLH-2
0.2	0.1	0.85	6.8	0.0	0.0	0.0
		0.90	7.5	0.1	0.0	0.0
		0.95	8.4	3.3	0.3	0.1
	0.2	0.85	8.9	2.9	0.6	0.3
		0.90	9.9	7.7	1.3	0.9
		0.95	11.3	25.3	2.9	1.7
	0.3	0.85	11.5	11.8	2.2	1.2
		0.90	12.7	24.2	3.4	1.9
		0.95	14.3	63.9	6.3	2.8
	0.4	0.85	14.5	24.4	3.5	1.2
		0.90	15.7	47.0	5.7	1.6
		0.95	17.3	116.2	11.2	2.1
0.4	0.1	0.85	12.4	0.0	0.0	0.0
		0.90	13.3	0.0	0.0	0.0
		0.95	14.5	0.4	0.1	0.1
	0.2	0.85	13.8	0.1	0.0	0.0
		0.90	15.2	0.8	0.2	0.0
		0.95	17.0	5.3	1.6	0.8
	0.3	0.85	16.1	1.3	0.3	0.1
		0.90	17.9	4.3	1.1	0.3
		0.95	20.2	16.7	3.3	1.5
	0.4	0.85	19.1	4.0	0.5	0.0
		0.90	21.1	11.1	1.9	0.5
		0.95	23.8	34.5	4.9	0.9

Table A7: Non-Stationary Problem (Amplitude=0.25)

ρ_d	ρ_γ	$\frac{p}{p+h}$	Optimal Cost	% above optimal cost			
				MULT	Newsboy	NLH-1	NLH-2
0.2	0.1	0.85	7.2	1.3	0.1	0.5	0.4
		0.90	8.1	2.3	0.1	1.0	0.8
		0.95	9.6	4.5	0.1	2.1	1.8
	0.2	0.85	9.5	6.7	0.4	1.6	1.1
		0.90	10.8	11.5	0.7	3.0	2.1
		0.95	12.9	23.5	1.4	6.8	4.8
	0.3	0.85	12.8	12.0	3.1	1.9	0.9
		0.90	14.8	21.1	5.1	3.6	1.9
		0.95	18.1	43.9	10.8	8.2	4.5
	0.4	0.85	16.9	14.6	11.1	1.5	0.5
		0.90	19.9	26.1	19.0	2.8	0.8
		0.95	25.3	55.0	41.0	6.4	1.8
0.4	0.1	0.85	13.0	0.2	0.0	0.1	0.1
		0.90	14.7	0.3	0.0	0.2	0.1
		0.95	17.3	0.6	0.1	0.4	0.3
	0.2	0.85	14.7	1.1	0.4	0.4	0.2
		0.90	16.7	2.1	0.5	0.8	0.5
		0.95	19.8	4.8	0.9	2.3	1.4
	0.3	0.85	17.4	2.7	2.4	0.5	0.1
		0.90	19.9	5.2	3.8	1.4	0.5
		0.95	24.1	11.8	7.6	3.9	1.8
	0.4	0.85	20.9	4.2	9.2	0.5	0.1
		0.90	24.4	8.1	15.1	1.2	0.2
		0.95	30.5	18.3	31.7	3.8	0.7

Table A8: Non-Stationary Problem (Amplitude=0.5)

ρ_d	ρ_γ	$\frac{p}{p+h}$	Optimal Cost	% above optimal cost			
				MULT	Newsboy	NLH-1	NLH-2
0.2	0.1	0.85	7.2	1.3	0.0	0.5	0.4
		0.90	8.1	2.3	0.1	1.0	0.8
		0.95	9.6	4.5	0.1	2.2	1.8
	0.2	0.85	9.5	6.7	0.3	1.6	1.1
		0.90	10.8	11.6	0.6	3.1	2.2
		0.95	12.9	23.7	1.2	7.0	5.0
	0.3	0.85	12.8	12.1	2.8	2.0	1.0
		0.90	14.7	21.3	4.6	3.8	2.0
		0.95	18.0	44.3	9.7	8.5	4.8
	0.4	0.85	16.9	14.7	10.3	1.7	0.6
		0.90	19.8	26.4	17.6	3.0	0.9
		0.95	25.2	55.5	38.6	6.9	2.1
0.4	0.1	0.85	13.0	0.2	0.0	0.1	0.1
		0.90	14.7	0.3	0.0	0.2	0.1
		0.95	17.3	0.6	0.1	0.4	0.3
	0.2	0.85	14.7	1.1	0.3	0.4	0.2
		0.90	16.7	2.2	0.4	0.9	0.5
		0.95	19.8	4.9	0.7	2.4	1.5
	0.3	0.85	17.3	2.8	2.2	0.6	0.2
		0.90	19.9	5.3	3.4	1.5	0.6
		0.95	24.0	12.0	6.8	4.1	2.0
	0.4	0.85	20.9	4.3	8.6	0.6	0.2
		0.90	24.3	8.2	14.0	1.4	0.2
		0.95	30.4	18.6	29.1	4.2	1.0