

Report on

Local Search Offline

Course: CSE 318

Course Title: Artificial Intelligence Sessional

Presented by

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Date of Submission: 24-01-2023

Data set for Exponential Penalty:

Benchmark Data	Known Best Solution		Scheme -1 Largest Degree + Kempe + Pairswap			
			Timeslots	Penalty		
	Timeslots	Penalty		After Largest Degree	After Kempe	After Pairswap
CARF92	32	3.74	34	10.942	5.365	5.319
CARS91	35	4.42	36	13.687	6.636	6.609
KFUS93	20	12.96	21	54.484	16.505	16.234
TRES92	23	7.75	23	16.571	10.465	10.345
YORF83	21	34.84	25	63.271	34.694	34.590

Benchmark Data	Known Best Solution		Scheme -2 Saturation Degree + Kempe + Pairswap			
			Timeslots	Penalty		
	Timeslots	Penalty		After Saturation Degree	After Kempe	After Pairswap
CARF92	32	3.74	34	11.281	5.274	5.213
CARS91	35	4.42	36	13.723	6.780	6.738
KFU93	20	12.96	21	53.964	17.488	16.810
TRE92	23	7.75	22	16.500	10.838	10.830
YOR83	21	34.84	24	63.249	34.301	34.239

Benchmark Data	Known Best Solution		Scheme -3 Largest Enrollment + Kempe + Pairswap			
			Timeslots	Penalty		
	Timeslots	Penalty		After Largest Enrollment	After Kempe	After Pairswap
CARF92	32	3.74	35	10.696	5.174	5.114
CARS91	35	4.42	36	13.781	6.512	6.498
KFU93	20	12.96	21	54.512	18.281	17.749
TRE92	23	7.75	22	16.330	10.893	10.791
YOR83	21	34.84	25	63.271	34.945	33.760

Benchmark Data	Known Best Solution		Scheme -4 Random Ordering + Kempe + Pairswap			
			Timeslots	Penalty		
	Timeslots	Penalty		After Random Ordering	After Kempe	After Pairswap
CARF92	32	3.74	44	8.368	4.150	4.064
CARS91	35	4.42	47	9.282	5.020	4.998
KFU93	20	12.96	24	35.101	13.483	13.247
TRE92	23	7.75	29	12.420	7.693	7.588
YOR83	21	34.84	25	50.169	32.604	32.581

Data set for Linear Penalty:

Benchmark Data	Known Best Solution		Largest Degree + Kempe + Pairswap			
			Timeslots	Penalty		
	Timeslots	Penalty		After Largest Degree	After Kempe	After Pairswap
CARF92	32	3.74	34	7.029	3.560	3.526
CARS91	35	4.42	36	8.785	4.284	4.269
KFU93	20	12.96	21	34.228	11.879	11.714
TRE92	23	7.75	23	10.449	6.645	6.623
YOR83	21	34.84	25	40.240	22.079	21.947