Report on

Local Search Offline

Course: CSE 318

Course Title: Artificial Intelligence Sessional

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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	32	9.4750	6.1531	5.670
CARS91	35	4.42	34	10.4678	8.1409	7.3712
KFU93	20	12.96	20	36.6533	22.2650	17.3249
TRE92	23	7.75	23	14.1316	10.4855	10.1018
YOR83	21	34.84	23	49.8299	40.9883	39.6163

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	31	8.9939	6.4141	5.9610
CARS91	35	4.42	30	10.9712	9.2129	8.9771
KFU93	20	12.96	21	31.1931	23.6681	17.8624
TRE92	23	7.75	21	14.1004	12.1947	11.7506
YOR83	21	34.84	23	49.5356	42.6578	41.7959

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	9.6586	5.5720	5.0894
CARS91	35	4.42	36	12.0478	7.3144	6.5844
KFU93	20	12.96	21	40.3486	17.6978	15.4606
TRE92	23	7.75	22	14.5181	11.0637	10.46788
YOR83	21	34.84	25	48.5589	35.1625	35.4739

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	7.2243	4.8921	4.2387
CARS91	35	4.42	46	8.7262	6.0835	5.4153
KFU93	20	12.96	27	29.9736	15.2323	13.4987
TRE92	23	7.75	27	11.3233	9.42958	9.0779
YOR83	21	34.84	25	44.2550	38.2008	37.5812

Data set for Linear Penalty:

Benchmark Data	Known Best Solution		Scheme -5 Largest Degree + Kempe + Pairswap			
			Timeslots	Penalty		
	Timeslots	Penalty		After Largest Degree	After Kempe	After Pairswap
CARF92	32	3.74	32	5.8343	4.0878	3.6411
CARS91	35	4.42	34	6.6138	5.0937	4.4781
KFU93	20	12.96	20	20.6741	12.6161	10.6158
TRE92	23	7.75	23	8.7504	6.7330	5.9903
YOR83	21	34.84	23	28.7863	23.9298	23.3857

Benchmark Data	Known Best Solution		Scheme -6 Saturation Degree + Kempe + Pairswap			
			Timeslots	Penalty		
	Timeslots	Penalty		After Saturation Degree	After Kempe	After Pairswap
CARF92	32	3.74	31	5.5571	4.0679	3.5904
CARS91	35	4.42	30	6.9012	5.6990	5.2620
KFU93	20	12.96	21	19.2761	11.3542	9.9263
TRE92	23	7.75	21	8.6903	7.656	7.1724
YOR83	21	34.84	23	29.2454	22.5015	22.2167

Benchmark Data	Known Best Solution		Scheme -7 Largest Enrollment + Kempe + Pairswap			
			Timeslots	Penalty		
	Timeslots	Penalty		After Largest Enrollment	After Kempe	After Pairswap
CARF92	32	3.74	35	5.9172	3.7019	3.0902
CARS91	35	4.42	36	7.4548	4.7034	4.0607
KFU93	20	12.96	21	22.6083	10.8457	9.6186
TRE92	23	7.75	22	9.0105	7.0848	6.7458
YOR83	21	34.84	25	28.3273	20.3570	20.0148

Benchmark Data	Known Best Solution		Scheme -8 Random Ordering + Kempe + Pairswap			
			Timeslots	Penalty		
	Timeslots	Penalty		After Random Ordering	After Kempe	After Pairswap
CARF92	32	3.74	43	4.4624	2.9206	2.4100
CARS91	35	4.42	47	5.1296	3.4946	2.8586
KFU93	20	12.96	23	15.9910	10.3914	8.2015
TRE92	23	7.75	29	7.6513	5.6399	4.7935
YOR83	21	34.84	29	24.0807	19.7895	18.4845