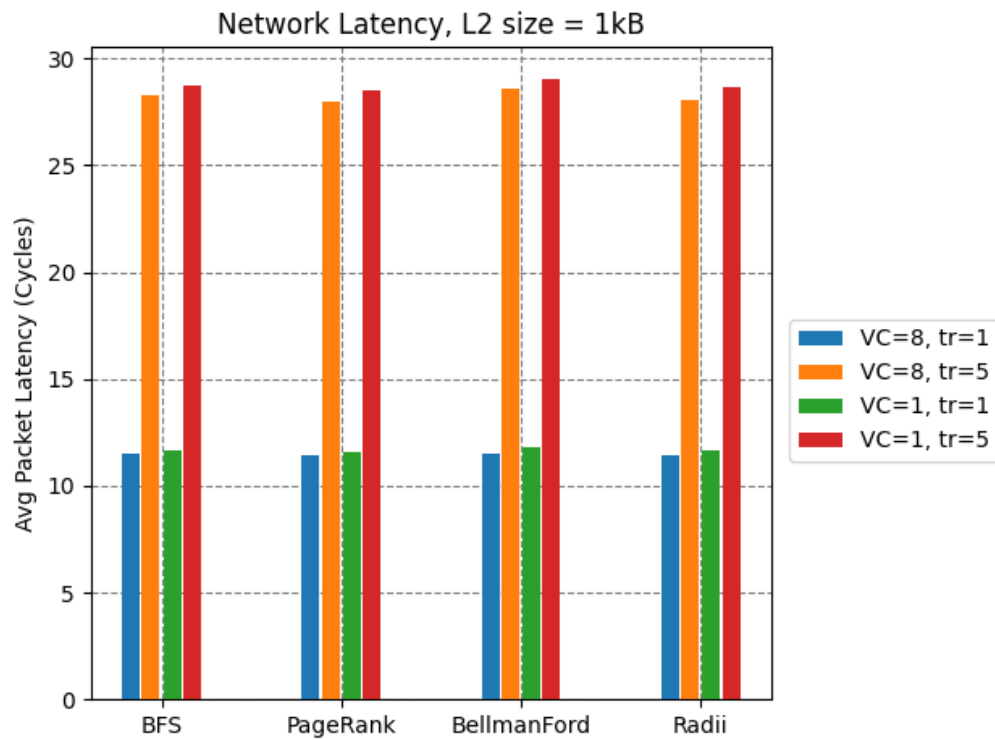


## ECE 6115: Interconnection Networks

### Lab 4 – Report

Graph for network latency (average\_packet\_network\_latency) with L2 size = 1kB

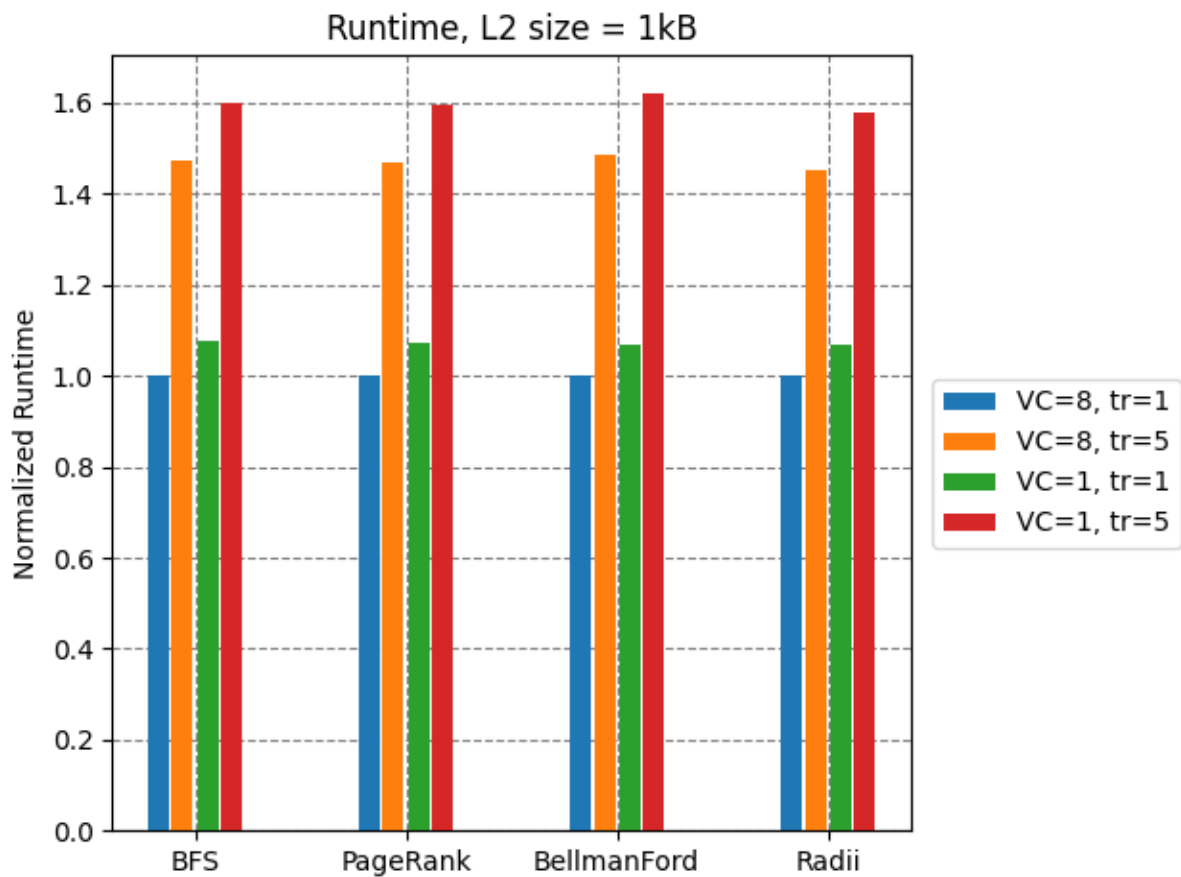
Benchmark	No. of VCs (VC)	Router Delay (tr)	Average Packet Network Latency
BFS	8	1	11.494729
	8	5	28.243246
	1	1	11.646668
	1	5	28.706200
PageRank	8	1	11.427629
	8	5	28.004431
	1	1	11.552439
	1	5	28.473205
BellmanFord	8	1	11.531803
	8	5	28.549284
	1	1	11.784858
	1	5	29.066225
Radii	8	1	11.395708
	8	5	28.084412
	1	1	11.657294
	1	5	28.637139



Graph for runtime (sim\_ticks) with L2 size = 1kB

Benchmark	No. of VCs (VC)	Router Delay (tr)	Runtime (sim_ticks)	Normalized Value (wrt VC = 8, tr = 1)
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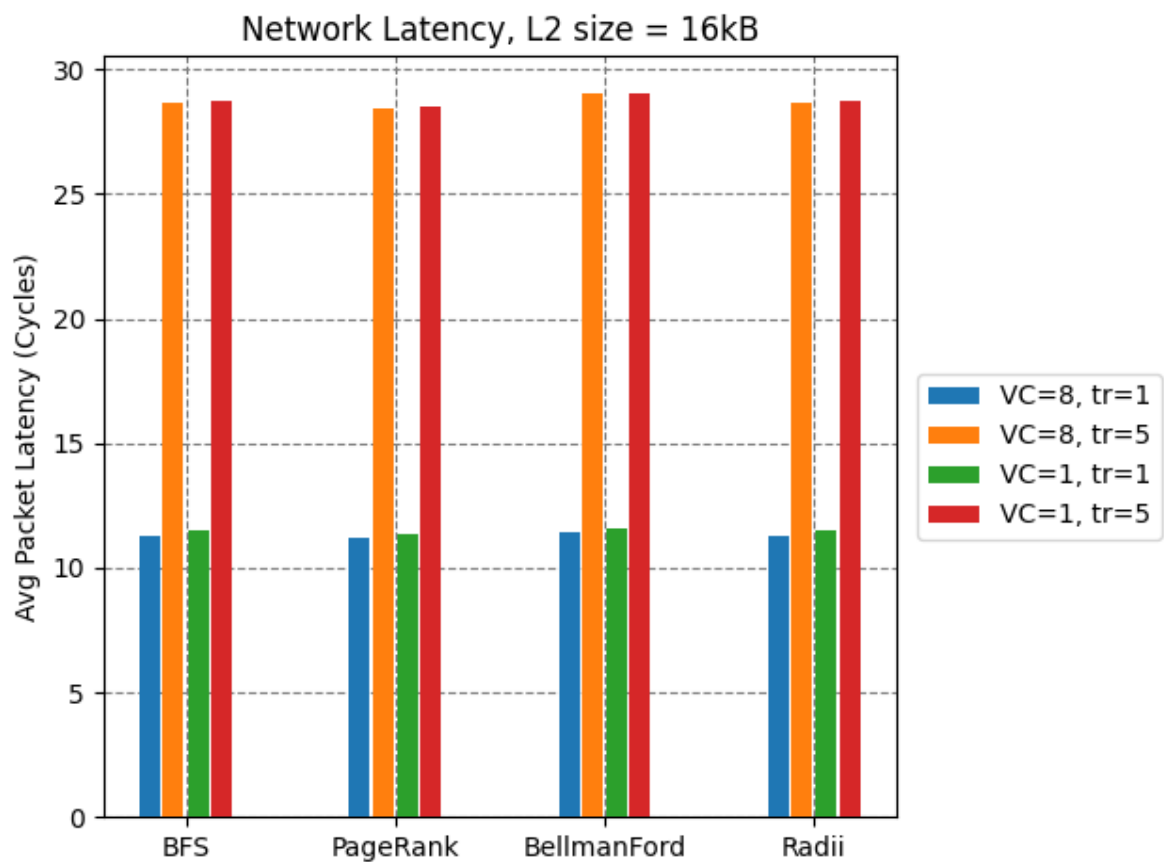
<b>BFS</b>	8	1	533110000	1
	8	5	785464000	1.473362
	1	1	573009500	1.074843
	1	5	852202500	1.598549
<b>PageRank</b>	8	1	544917000	1
	8	5	800756000	1.469501
	1	1	585506500	1.074487
	1	5	869926000	1.596438
<b>BellmanFord</b>	8	1	527994000	1
	8	5	785571000	1.487841
	1	1	565144000	1.070361
	1	5	856771000	1.622691
<b>Radii</b>	8	1	527294000	1
	8	5	764750500	1.45033
	1	1	564402000	1.070374
	1	5	831775000	1.577441



Graph for network latency (average\_packet\_network\_latency) with L2 size = 16kB

Benchmark	No. of VCs (VC)	Router Delay (tr)	Average Packet Network Latency
<b>BFS</b>	8	1	11.298683
	8	5	28.668484
	1	1	11.482229

	1	5	28.754182
PageRank	8	1	11.193993
	8	5	28.433128
	1	1	11.372244
	1	5	28.470809
BellmanFord	8	1	11.389678
	8	5	29.012891
	1	1	11.580171
	1	5	29.059074
Radii	8	1	11.285793
	8	5	28.631536
	1	1	11.465542
	1	5	28.711921



Graph for runtime (sim\_ticks) with L2 size = 16kB

Benchmark	No. of VCs (VC)	Router Delay (tr)	Runtime (sim_ticks)	Normalized Value (wrt VC = 8, tr = 1)
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<b>BFS</b>	8	1	480180000	1
	8	5	718913000	1.497174
	1	1	515385000	1.073316
	1	5	788541000	1.642178
<b>PageRank</b>	8	1	482182500	1
	8	5	719224500	1.491602
	1	1	521044000	1.080595
	1	5	793511500	1.645666
<b>BellmanFord</b>	8	1	483034000	1
	8	5	723231000	1.497267
	1	1	524401000	1.08564
	1	5	797578000	1.651184
<b>Radii</b>	8	1	467904000	1
	8	5	697577500	1.490856
	1	1	508480000	1.086719
	1	5	761932500	1.628395

