

Cs224 Lab6

Altay İlker Yiğitel

22203024

Sec 4

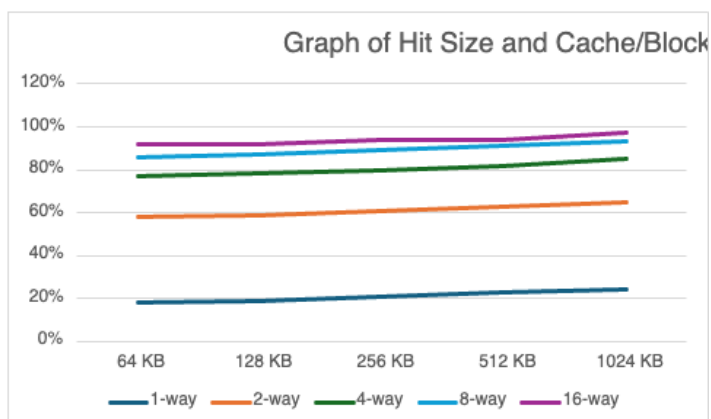
1. 20x20 Matrix

Row Addition:

Cache/Block Size	64 KB	128 KB	256 KB	512 KB	1024 KB
1-way	50%	52%	55%	58%	60%
2-way	58%	59%	61%	63%	65%
4-way	77%	78%	80%	82%	85%
8-way	86%	87%	89%	91%	93%
16-way	92%	92%	94%	94%	97%

Column Addition:

Cache/Block Size	64	128	256	512	1024
1	25%	27%	28%	29%	31%
2	44%	45%	46%	47%	49%
4	53%	53%	54%	54%	55%
8	58%	58%	59%	59%	60%
16	60%	60%	60%	61%	61%



Fully Associative Caches:

Column1	Bad	Medium	Good
	1 way 64kb	4 way 256kb	16 way 1024kb
Direct Mapped	21%	80%	97%
Fully Associative	23%	81%	95%
Random Replacement	19%	79%	96%

N-way Set Associative Caches:

Column1	Bad	Medium	Good
	1 way 64kb	4 way 256kb	16 way 1024kb
Set size 1	21%	80%	95%
Set size 2	21%	81%	95%
Set size 4	21%	81%	95%

2. 80x80 Matrix

Row Addition

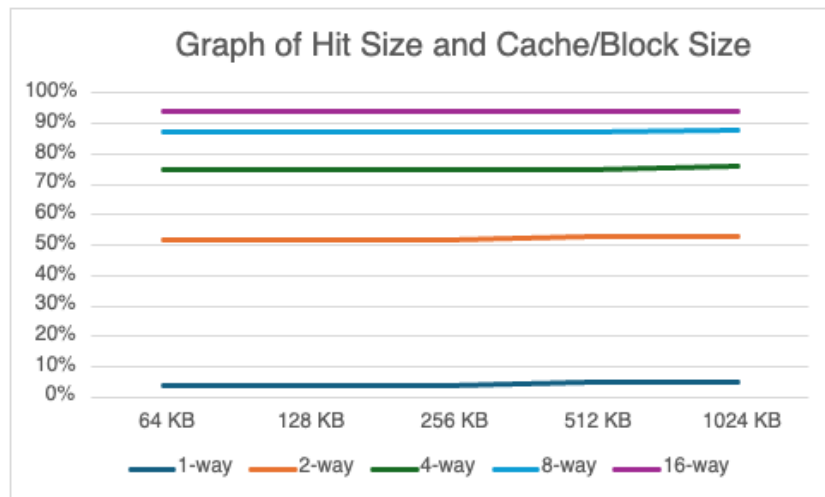
Cache/Block Size	64 KB	128 KB	256 KB	512 KB	1024 KB
1-way	4%	4%	4%	5%	5%
2-way	52%	52%	52%	53%	53%
4-way	75%	75%	75%	75%	76%
8-way	87%	87%	87%	87%	88%
16-way	94%	94%	94%	94%	94%

Column Addition

Cache/Block Size	64 KB	128 KB	256 KB	512 KB	1024 KB
1-way	6%	7%	8%	8%	8%
2-way	30%	31%	31%	31%	31%
4-way	42%	42%	42%	42%	42%

8-way	48%	48%	48%	48%	48%
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16-way	51%	51%	51%	51%	51%
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Fully Associative Caches:

Column1	Bad	Medium	Good
	1 way 64kb	4 way 256kb	16 way 1024kb
Direct Mapped	4%	75%	94%
Fully Associative	4%	75%	94%
Random Replacement	4%	75%	94%

N-way Set Associative Caches:

Column1	Bad	Medium	Good
	1 way 64kb	4 way 256kb	16 way 1024kb
Set size			
1	4%	75%	94%
Set size			
2	4%	75%	94%
Set size			
4	4%	75%	94%