Matrix Size	Number Of Cores	# Time # (serial)	# Time # (parallel)	scenario	Speedup	Efficiency (%)	Theoretical Speedup (Amdahl's Law)	Amdahl's Speedup
4096	4	0.146092	5.77228	inversionFixedSizeSingleRegion	0.02530923656	0.632730914	3.076923077	0.008225501881
4096	8	0.146092	1.31268	inversionFixedSizeSingleRegion	0.1112929274	1.391161593	4.705882353	0.02364974708
4096	16	0.146092	1.17111	inversionFixedSizeSingleRegion	0.1247466079	0.7796662995	6.4	0.01949165749
1024	2	0.00949089	1.06125	inversionFixedSizeCrossRegion	0.008943123675	0.4471561837	1.818181818	0.004918718021
1024	4	0.00949089	0.260469	inversionFixedSizeCrossRegion	0.03643769508	0.910942377	3.076923077	0.0118422509
1024	8	0.00949089	0.0959088	inversionFixedSizeCrossRegion	0.09895744707	1.236968088	4.705882353	0.0210284575
1024	16	0.00949089	3.96472	inversionFixedSizeCrossRegion	0.002393836135	0.01496147584	6.4	0.000374036896
							Theoretical	
Matrix Size	Number Of Cores	Time (serial)	# Time # (parallel)	scenario	Speedup	Efficiency (%)	Speedup (Amdahl's Law)	Amdahl's Speedup
Matrix Size 1024				scenario inversionFixedLoadSingleRegion	Speedup 0.008920763974	Efficiency (%) 0.4460381987	Speedup	Amdahl's Speedup 0.004906420186
	Cores	(serial)	# (parallel)			1	Speedup (Amdahl's Law)	
1024	Cores 2	(serial) 0.00949089	# (parallel) 1.06391	inversionFixedLoadSingleRegion	0.008920763974	0.4460381987	Speedup (Amdahl's Law) 1.818181818	0.004906420186
1024	Cores 2	(serial) 0.00949089 0.0361291	# (parallel) 1.06391 0.9436	inversionFixedLoadSingleRegion inversionFixedLoadSingleRegion	0.008920763974 0.03828857567	0.4460381987 0.9572143917	Speedup (Amdahl's Law) 1.818181818 3.076923077	0.004906420186 0.01244378709
1024 2048 4096	Cores 2 4 8	(serial) 0.00949089 0.0361291 0.146092	# (parallel) 1.06391 0.9436 1.34828	inversionFixedLoadSingleRegion inversionFixedLoadSingleRegion inversionFixedLoadSingleRegion	0.008920763974 0.03828857567 0.1083543478	0.4460381987 0.9572143917 1.354429347	Speedup (Amdahl's Law) 1.818181818 3.076923077 4.705882353	0.004906420186 0.01244378709 0.0230252989
1024 2048 4096 8192	Cores 2 4 8 16	(serial) 0.00949089 0.0361291 0.146092 0.607012	# (parallel) 1.06391 0.9436 1.34828 112.437	inversionFixedLoadSingleRegion inversionFixedLoadSingleRegion inversionFixedLoadSingleRegion inversionFixedLoadSingleRegion	0.008920763974 0.03828857567 0.1083543478 0.005398685486	0.4460381987 0.9572143917 1.354429347 0.03374178429	Speedup (Amdahl's Law) 1.818181818 3.076923077 4.705882353 6.4	0.004906420186 0.01244378709 0.0230252989 0.0008435446072
1024 2048 4096 8192 1024	Cores 2 4 8 16 2	(serial) 0.00949089 0.0361291 0.146092 0.607012 0.00949089	# (parallel) 1.06391 0.9436 1.34828 112.437 1.06319	inversionFixedLoadSingleRegion inversionFixedLoadSingleRegion inversionFixedLoadSingleRegion inversionFixedLoadSingleRegion inversionFixedLoadCrossRegion	0.008920763974 0.03828857567 0.1083543478 0.005398685486 0.008926805181	0.4460381987 0.9572143917 1.354429347 0.03374178429 0.446340259	Speedup (Amdahl's Law) 1.818181818 3.076923077 4.705882353 6.4 1.818181818	0.004906420186 0.01244378709 0.0230252989 0.0008435446072 0.004909742849
1024 2048 4096 8192 1024 2048 4096	Cores 2 4 8 16 2 4	(serial) 0.00949089 0.0361291 0.146092 0.607012 0.00949089 0.0361291	# (parallel) 1.06391 0.9436 1.34828 112.437 1.06319 0.877459	inversionFixedLoadSingleRegion inversionFixedLoadSingleRegion inversionFixedLoadSingleRegion inversionFixedLoadSingleRegion inversionFixedLoadCrossRegion inversionFixedLoadCrossRegion	0.008920763974 0.03828857567 0.1083543478 0.005398685486 0.008926805181 0.04117468736	0.4460381987 0.9572143917 1.354429347 0.03374178429 0.446340259 1.029367184	Speedup (Amdahl's Law) 1.818181818 3.076923077 4.705882353 6.4 1.818181818 3.076923077	0.004906420186 0.01244378709 0.0230252989 0.0008435446072 0.004909742849 0.01338177339
1024 2048 4096 8192 1024 2048	Cores 2 4 8 16 2 4 8	(serial) 0.00949089 0.0361291 0.146092 0.607012 0.00949089 0.0361291 0.146092	# (parallel) 1.06391 0.9436 1.34828 112.437 1.06319 0.877459 1.36962	inversionFixedLoadSingleRegion inversionFixedLoadSingleRegion inversionFixedLoadSingleRegion inversionFixedLoadSingleRegion inversionFixedLoadCrossRegion inversionFixedLoadCrossRegion inversionFixedLoadCrossRegion	0.008920763974 0.03828857567 0.1083543478 0.005398685486 0.008926805181 0.04117468736 0.1066660826	0.4460381987 0.9572143917 1.354429347 0.03374178429 0.446340259 1.029367184 1.333326032	Speedup (Amdahl's Law) 1.818181818 3.076923077 4.705882353 6.4 1.818181818 3.076923077 4.705882353	0.004906420186 0.01244378709 0.0230252989 0.0008435446072 0.004909742849 0.01338177339 0.02266654254

Matrix Size	Number Of Cores	# Time # (serial)	# Time # (parallel)	scenario	Speedup	Efficiency (%)	Theoretical Speedup (Amdahl's Law)	Amdahl's Speedup
Matrix Size	Number Of Cores	Time (serial)	# Time # (parallel)	scenario	Speedup	Efficiency (%)	Theoretical Speedup (Amdahl's Law)	Amdahl's Speedup
1024	2	8.35007	11.1404	multiplicationFixedSizeSingleRegion	0.7495305375	37.47652688	1.818181818	0.4122417956
1024	4	8.35007	5.58409	multiplicationFixedSizeSingleRegion	1.495332274	37.38330686	3.076923077	0.4859829892
1024	8	8.35007	5.58409	multiplicationFixedSizeSingleRegion	1.495332274	18.69165343	4.705882353	0.3177581083
1024	16	8.35007	1.4189	multiplicationFixedSizeSingleRegion	5.884889703	36.78056065	6.4	0.9195140161
1024	2	8.35007	11.1322	multiplicationFixedSizeCrossRegion	0.7500826431	37.50413216	1.818181818	0.4125454537
1024	4	8.35007	5.56975	multiplicationFixedSizeCrossRegion	1.49918219	37.47955474	3.076923077	0.4872342116
1024	8	8.35007	5.11362	multiplicationFixedSizeCrossRegion	1.632907803	20.41134754	4.705882353	0.3469929082
1024	16	8.35007	26.2454	multiplicationFixedSizeCrossRegion	0.3181536574	1.988460359	6.4	0.04971150897
Matrix Size	Number Of Cores	Time # (serial)	# (parallel)	scenario	Speedup	Efficiency (%)	Theoretical Speedup (Amdahl's Law)	Amdahl's Speedup
512	2	1.00479	1.34979	multiplicationFixedLoadSingleRegion	0.7444046852	37.22023426	1.818181818	0.4094225768
1024	4	8.35007	5.64873	multiplicationFixedLoadSingleRegion	1.478220768	36.95551921	3.076923077	0.4804217497
2048	8	81.8249	35.2633	multiplicationFixedLoadSingleRegion	2.320398261	29.00497826	4.705882353	0.4930846305
4096	16	740.54927	663.241	multiplicationFixedLoadSingleRegion	1.116561356	6.978508472	6.4	0.1744627118
512	2	1.00479	1.35896	multiplicationFixedLoadCrossRegion	0.7393815859	36.9690793	1.818181818	0.4066598723
1024	4	8.35007	5.62623	multiplicationFixedLoadCrossRegion	1.484132359	37.10330897	3.076923077	0.4823430165
2048	8	81.8249	30.0107	multiplicationFixedLoadCrossRegion	2.726524206	34.08155258	4.705882353	0.5793863939

Matrix S	ize Number Of Cores	# Time # (serial)	# Time # (parallel)	scenario	Speedup	Efficiency (%)	Theoretical Speedup (Amdahl's Law)	Amdahl's Speedup
4096	16	740.54927	2737.52	multiplicationFixedLoadCrossRegion	0.2705183049	1.690739406	6.4	0.04226848514

Matrix Size 4096 4096		Time 4 5.77228 8 1.31268	invFSS		
4096	1	6 1.17111			
	Time vs Number	er Of Cores			
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			Number Of Cores		

Matrix Size	Number Of Cores	Т	ime				
1024		2	1.06391				
2048		4	0.9436		invFLS		
4096		8	1.34828				
8192		16	112.437				
	Time vs Num	nber O	f Cores		-	-	!
	125						
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	50						
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	0						
	2	4	6	8 1	10 1	2	14 16
				Number Of Cor	es		

Matrix Size	Number Of	Cores	Time					
1024		2	1.0612	5				
1024		4	0.260469	9	invFSM			
1024		8	0.0959088	3				
1024		16	3.96472	2				
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	Time	vs Number	Of Cores					
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	-	2 4	6	8	10	12	14 1	6

Matrix Size	Number Of Cores	Time					
1024	2	1.06319					
2048	4	0.877459		invFLM			
4096	8	1.36962					
8192	16	139.404					
	Time vs Number Of	f Cores					
	150	00100					
	100 <u>E</u>						
	0						
	2 4	6	8 10	1:	2	14	16
			umber Of Core	_			

Matrix Size	Number Of Cores	Time			
1024	2	11.1404			
1024	4	5.58409	mulFSS		
1024	8	5.58409			
1024	16	1.4189			
	Time vs Numbe	6 8	10 12	14 16	

Matrix Size	Number Of Core	Time						
512	2	1.34979						
1024	4	5.64873		mulFL	S			
2048	8	35.2633						
4096	16	663.241						
	I Ime vs I	Number Of C	Cores					
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	-							
	-							
	600							
	-							
	⊕ 400							
	⊕ 400 <u>E</u>							
	-							
	200							
	0	4	6	8	10	12	14	1
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				Number Of	Cores			

Matrix Size	Number Of C	Cores	Time						
1024		2	1	1.1322					
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1024	1024		5	.11362		mulFSN	Л		
1024		16	2	6.2454					
			010						
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	30								_
	20								
	Time								
	10								
	0								
	2	2 4	6	i	8 1	0	12	14	•
				N	umber Of Co	rec			

Matrix Size	Number Of Cores	Time					
512	2	1.35896					
1024	4	5.62623					
2048		30.0107		mulFLM			
4096	16	2737.52					
	2000	lumber Of C	Cores				
	υ Ε 1000 —						
	0 2	4	6	8 10 Number Of Cores	12	14	1