	base	optimize		average IPC improvement %
core 0 ins	40959334	40960190		0.1513786423
core 0 cycle	51574552	51497937		
core 1 ins	40775651	40776932		
core 1 cycle	51142532	51066574		
core 0 IPC	0.7941772136	0.7953753565		
core 1 IPC	0.7972943342	0.7985053393		
l1d-0 upgrade miss	5542	11		
l1d-0 INV	5569	5150		
l1d-0 INVX	5608	82		
l1d-1 upgrade miss	5542	13		
l1d-1 INV	5561	5146		
l1d-1 INVX	5540	6		
l2-0 upgrade miss	5542	11		
l2-0 INV	5569	5150		
l2-0 INVX	5638	113		
l2-1 upgrade miss	5541	13		
l2-1 INV	5561	5146		
l2-1 INVX	5540	6		

	base	optimize		average IPC improvement %
core 0 ins	40848255	40848255		-0.001147717365
core 0 cycle	51297351	51297164		
core 1 ins	40478789	40478789		
core 1 cycle	50444215	50445551		
core 0 IPC	0.7963033998	0.7963063026		
core 1 IPC	0.8024466036	0.8024253516		
l1d-0 upgrade miss	5477	5825		
l1d-0 INV	12	17		
l1d-0 INVX	5544	5893		
l1d-1 upgrade miss	9	9		
l1d-1 INV	5478	5827		
l1d-1 INVX	4	3		
l2-0 upgrade miss	5477	5825		
l2-0 INV	12	12		
l2-0 INVX	5576	5926		
l2-1 upgrade miss	9	9		
l2-1 INV	5478	5827		
l2-1 INVX	4	3		

	base	optimize		average IPC improvement %
core 0 ins	101414640	101414944		0.1543741893
core 0 cycle	128525342	128328283		
core 1 ins	101227078	101227243		
core 1 cycle	128102355	127904454		
core 0 IPC	0.789063374	0.7902774169		
core 1 IPC	0.790204661	0.7914286003		
l1d-0 upgrade miss	36214	9		
l1d-0 INV	36358	35348		
l1d-0 INVX	36273	91		
l1d-1 upgrade miss	36206	18		
l1d-1 INV	36350	35349		
l1d-1 INVX	36201	3		
l2-0 upgrade miss	36212	9		
l2-0 INV	36358	35350		
l2-0 INVX	36300	120		
l2-1 upgrade miss	36201	18		
l2-1 INV	36350	35349		
l2-1 INVX	36201	3		

	base	optimize		average IPC improvement %
core 0 ins	105487777	105492247		0.1302873499
core 0 cycle	131609804	131444466		
core 1 ins	105303021	105310317		
core 1 cycle	131192108	131030143		
core 0 IPC	0.8015191406	0.8025613418		
core 1 IPC	0.8026627715	0.8037106164		
l1d-0 upgrade miss	37756	17		
l1d-0 INV	38012	34803		
l1d-0 INVX	37779	86		
l1d-1 upgrade miss	37726	20		
l1d-1 INV	38006	34792		
l1d-1 INVX	37750	14		
l2-0 upgrade miss	37755	17		
l2-0 INV	38012	34803		
l2-0 INVX	37810	120		
l2-1 upgrade miss	37720	20		
l2-1 INV	38006	34792		
l2-1 INVX	37750	14		

	base	optimize		average IPC improvement %
core 0 ins	105473191	105473152		0.002278383362
core 0 cycle	131292665	131290458		
core 1 ins	104077090	104077044		
core 1 cycle	128027300	128023524		
core 0 IPC	0.8033441244	0.8033573316		
core 1 IPC	0.8129288831	0.8129525008		
l1d-0 upgrade miss	37846	17		
l1d-0 INV	447	37897		
l1d-0 INVX	37916	86		
l1d-1 upgrade miss	443	18		
l1d-1 INV	37848	37897		
l1d-1 INVX	438	11		
l2-0 upgrade miss	37846	17		
l2-0 INV	447	37898		
l2-0 INVX	37946	121		
l2-1 upgrade miss	443	18		
l2-1 INV	37848	37897		
l2-1 INVX	438	11		

	base	optimize		average IPC improvement %
core 0 ins	104260413	104260600		-0.5407563013
core 0 cycle	127778163	128481455		
core 1 ins	104077044	104077217		
core 1 cycle	127345461	128029753		
core 0 IPC	0.8159485984	0.8114836495		
core 1 IPC	0.8172811436	0.8129142997		
l1d-0 upgrade miss	455	17		
l1d-0 INV	466	38156		
l1d-0 INVX	533	87		
l1d-1 upgrade miss	463	18		
l1d-1 INV	456	38147		
l1d-1 INVX	458	11		
l2-0 upgrade miss	455	17		
l2-0 INV	466	38156		
l2-0 INVX	564	121		
l2-1 upgrade miss	463	18		
l2-1 INV	456	38147		
l2-1 INVX	458	11		