



CIENCIA DE LA COMPUTACIÓN

“Pthreads”

Algoritmos Paralelos CCOMP 7-1

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“La alumna declara haber realizado el presente trabajo de acuerdo a las normas de la Universidad Católica San Pablo”

FIRMA

Tiempos de Lista Simple Enlazada Paralela

Especificaciones

100,000 ops/thread

99.9% Member

0.05% Insert

0.05% Delete

Tiempo en segundos

Implementation	Number of Threads			
	1	2	4	8
Read-Write Locks	0.213	0.123	0.098	0.115
One Mutex for Entire List	0.211	0.450	0.385	0.457
One Mutex per Node	1.680	5.700	3.450	2.700

Implementación	Numero de hilos			
	1	2	4	8
Read-Write Locks	0.682828903198 2422	0.344566106796 2646	0.215972185134 8877	0.243134021759 0332
One Mutex for Entire List	0.674429178237 915	0.807137966156 0059	1.351937055587 769	1.389462947845 459
One Mutex per Node	2.826874971389 771	1.720713853836 06	1.217756032943 726	1.581643819808 96

Especificaciones

100,000 ops/thread

80% Member

10% Insert

10% Delete

Tiempo en segundos

Implementation	Number of Threads			
	1	2	4	8
Read-Write Locks	2.48	4.97	4.69	4.71
One Mutex for Entire List	2.50	5.13	5.04	5.11
One Mutex per Node	12.00	29.60	17.00	12.00

Implementación	Numero de hilos			
	1	2	4	8
Read-Write Locks	1.058800220489502	0.9292051792144775	0.9012210369110107	1.267345905303955
One Mutex for Entire List	1.058229923248291	1.162974119186401	1.278278112411499	1.292840957641602
One Mutex per Node	2.802820205688477	1.616665840148926	1.085551977157593	2.58164381980896