

Appendices

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v1274-0a9c8c1f:~ maxchandler$ ping google.com
PING google.com (216.58.210.78): 56 data bytes
64 bytes from 216.58.210.78: icmp_seq=0 ttl=49 time=5.701 ms
64 bytes from 216.58.210.78: icmp_seq=1 ttl=49 time=6.694 ms
64 bytes from 216.58.210.78: icmp_seq=2 ttl=49 time=5.983 ms
64 bytes from 216.58.210.78: icmp_seq=3 ttl=49 time=9.838 ms
64 bytes from 216.58.210.78: icmp_seq=4 ttl=49 time=8.772 ms
64 bytes from 216.58.210.78: icmp_seq=5 ttl=49 time=8.619 ms
64 bytes from 216.58.210.78: icmp_seq=6 ttl=49 time=8.405 ms
64 bytes from 216.58.210.78: icmp_seq=7 ttl=49 time=6.513 ms
64 bytes from 216.58.210.78: icmp_seq=8 ttl=49 time=5.660 ms
64 bytes from 216.58.210.78: icmp_seq=9 ttl=49 time=8.263 ms
64 bytes from 216.58.210.78: icmp_seq=10 ttl=49 time=17.290 ms
64 bytes from 216.58.210.78: icmp_seq=11 ttl=49 time=9.971 ms
64 bytes from 216.58.210.78: icmp_seq=12 ttl=49 time=8.414 ms
64 bytes from 216.58.210.78: icmp_seq=13 ttl=49 time=8.528 ms
64 bytes from 216.58.210.78: icmp_seq=14 ttl=49 time=6.038 ms
64 bytes from 216.58.210.78: icmp_seq=15 ttl=49 time=8.213 ms
64 bytes from 216.58.210.78: icmp_seq=16 ttl=49 time=7.066 ms
64 bytes from 216.58.210.78: icmp_seq=17 ttl=49 time=7.333 ms
64 bytes from 216.58.210.78: icmp_seq=18 ttl=49 time=5.929 ms
64 bytes from 216.58.210.78: icmp_seq=19 ttl=49 time=12.047 ms
AC
--- google.com ping statistics ---
20 packets transmitted, 20 packets received, 0.0% packet loss
round-trip min/avg/max/stddev = 5.660/8.264/17.290/2.631 ms
```

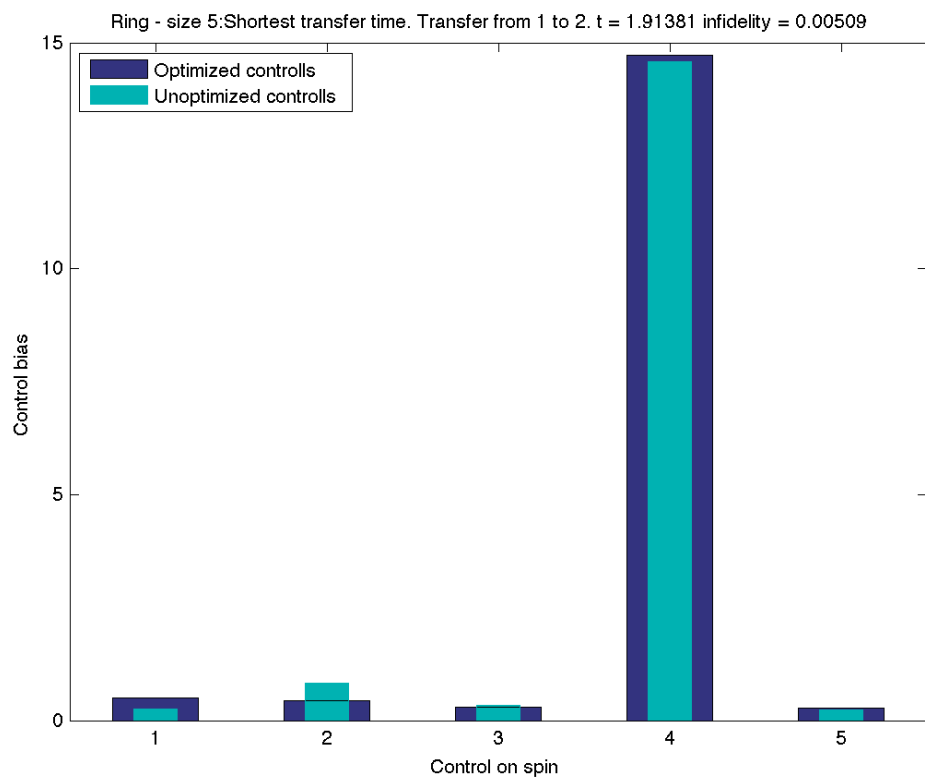
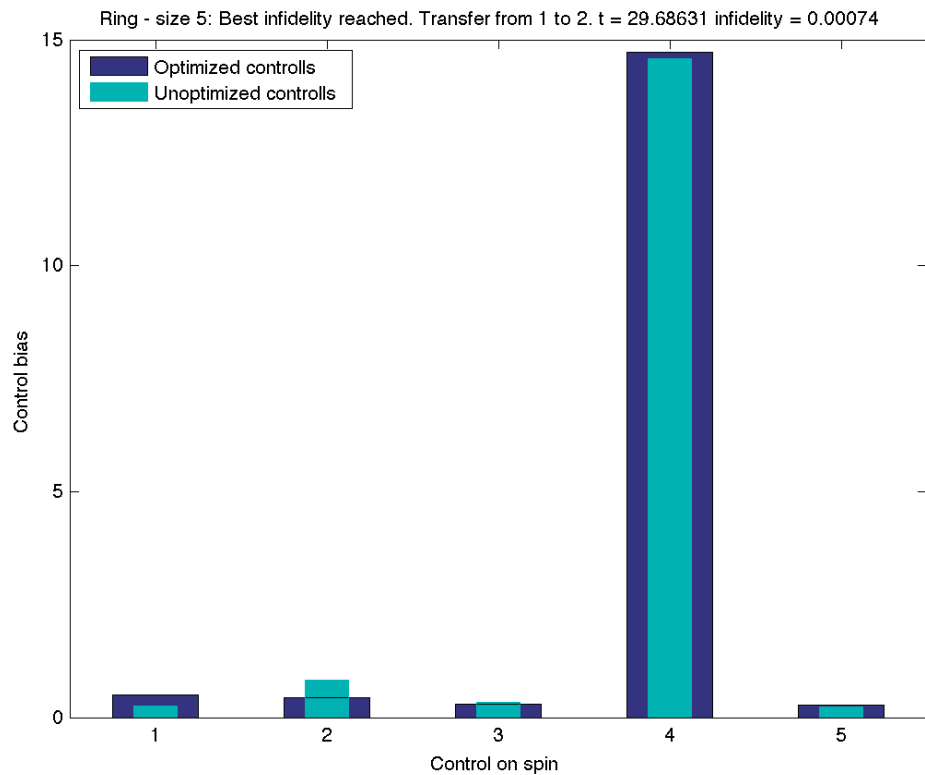
FIGURE 1 PING STATISTICS TO GOOGLE.COM FROM CARDIFF UNIVERSITY

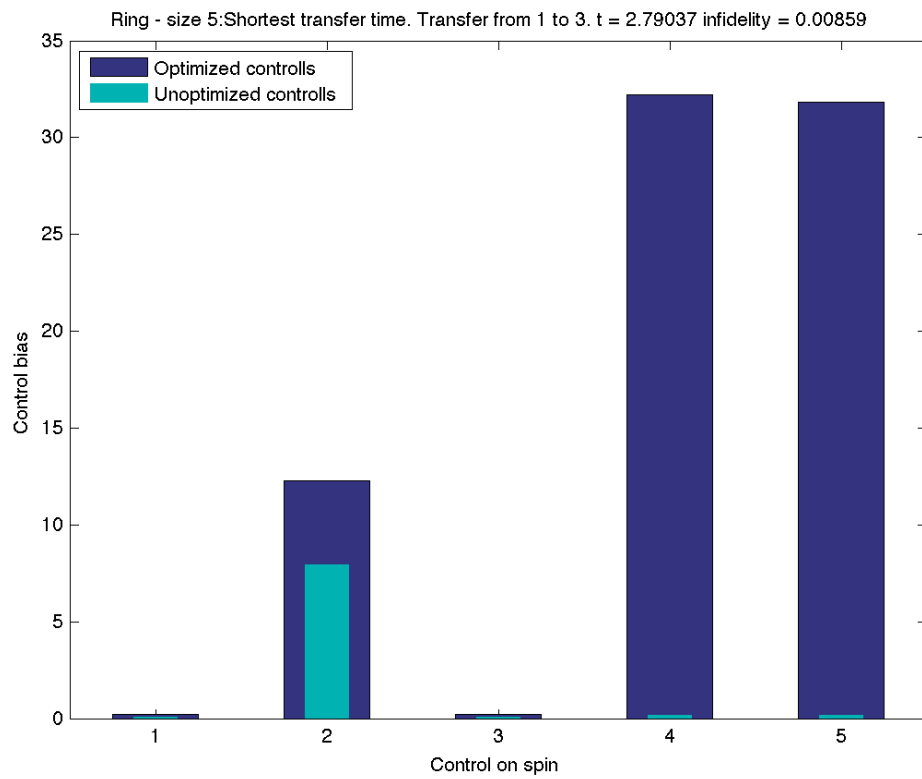
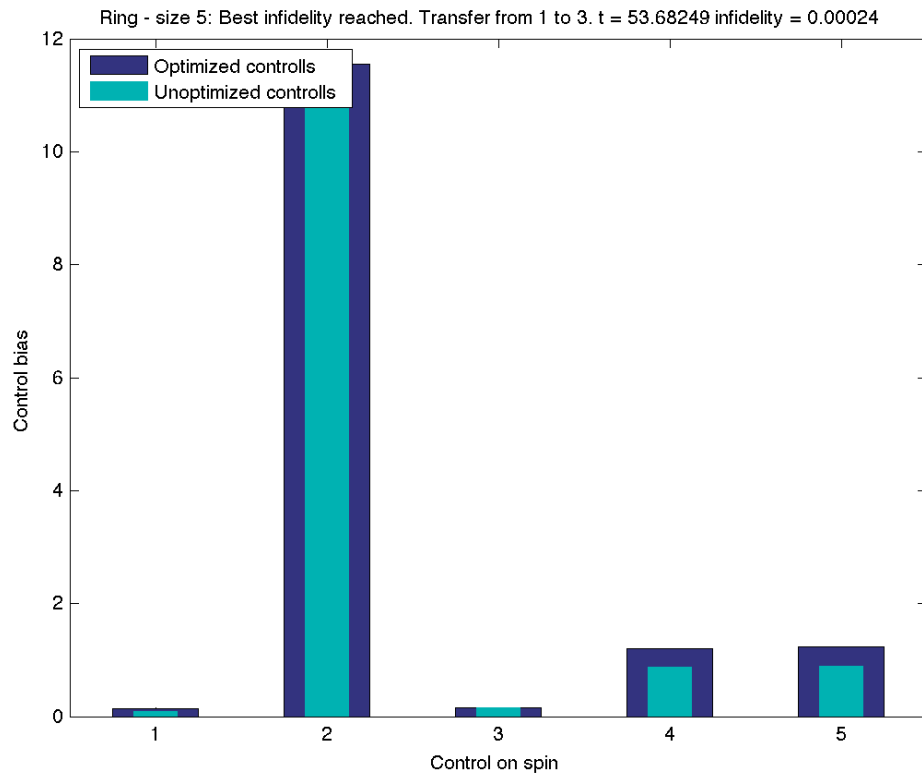
Teaching Week	Target	Key Milestones
2	Initial research of L-BFGS algorithm and quantum target function for spin networks	
	Initial framework of final report, where sections are clearly defined	
3	Implement L-BFGS and test on basic problems	Start of serial implementation
4	Develop quantum target function	
5	Adapt L-BFGS for quantum control of spin networks	
6	Test algorithm with Quantum Target Function	End of serial development
	Benchmarking algorithm including collection of results	
	Completion of sequential implementation	
7	Research CUDA implementation techniques, and become familiar with CUDA programming	Start of parallel implementation
	Research into parallelising line search and target function	
8	Development of L-BFGS parallel line search	
9	Development of parallel target function	
Easter Week 1	Development of parallel target function	
	Test algorithm with Quantum Target Function	
Easter Week 2	Completion of parallel implementation	End of parallel implementation
Easter Week 3	Benchmarking algorithm against parallel version	
10	Report Writing	Focus switches to report writing
11	Report Writing	
12	Report submission	Report submission

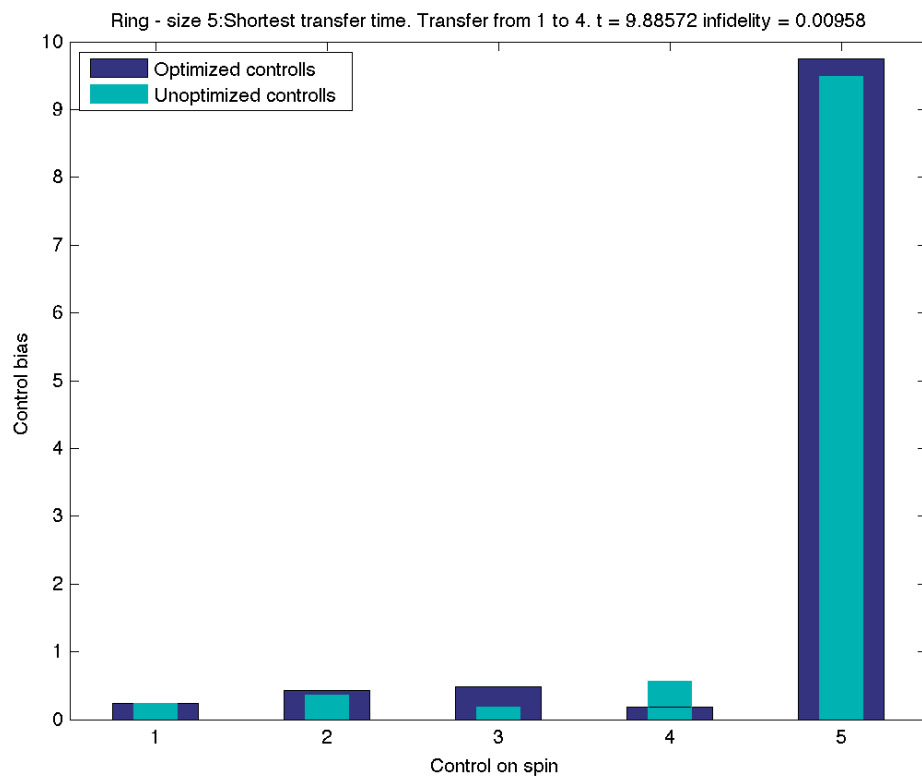
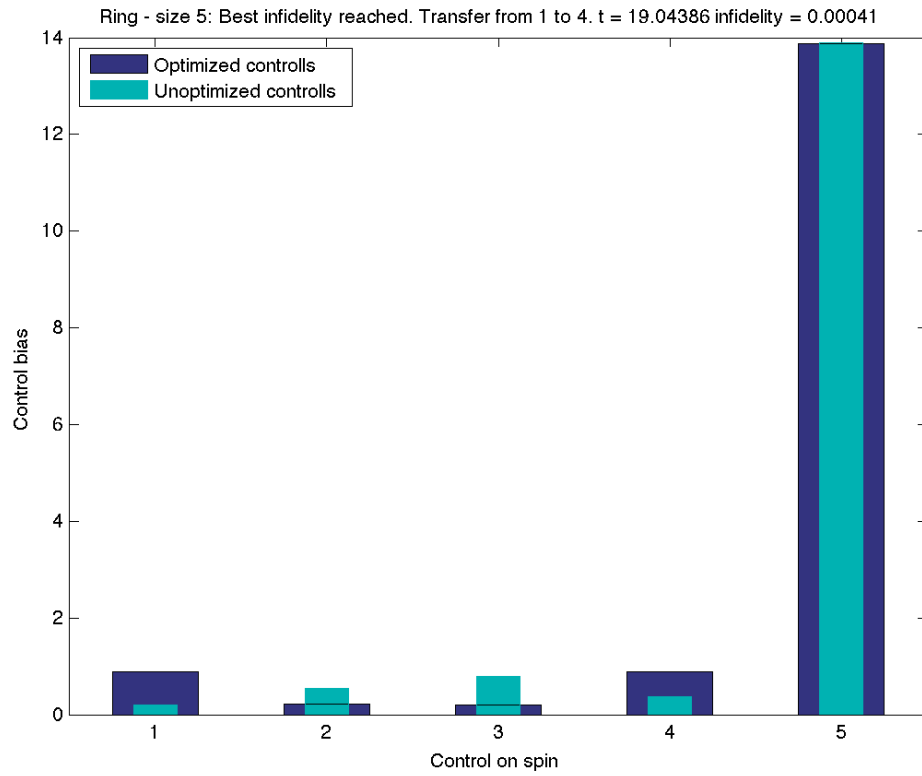
FIGURE 2 TIME PLAN IN INITIAL REPORT

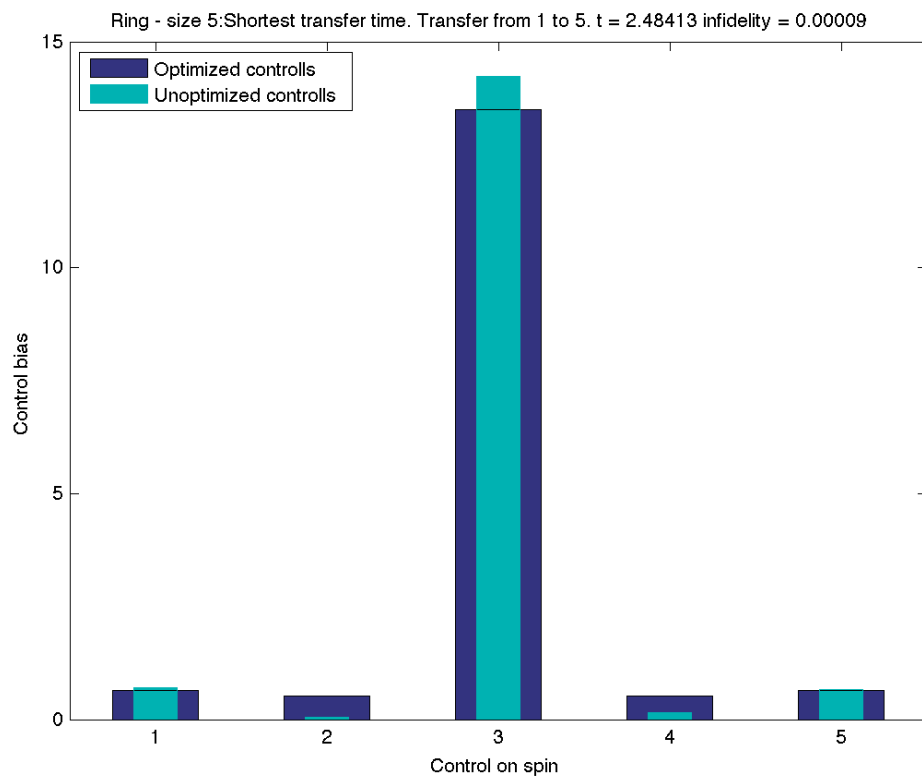
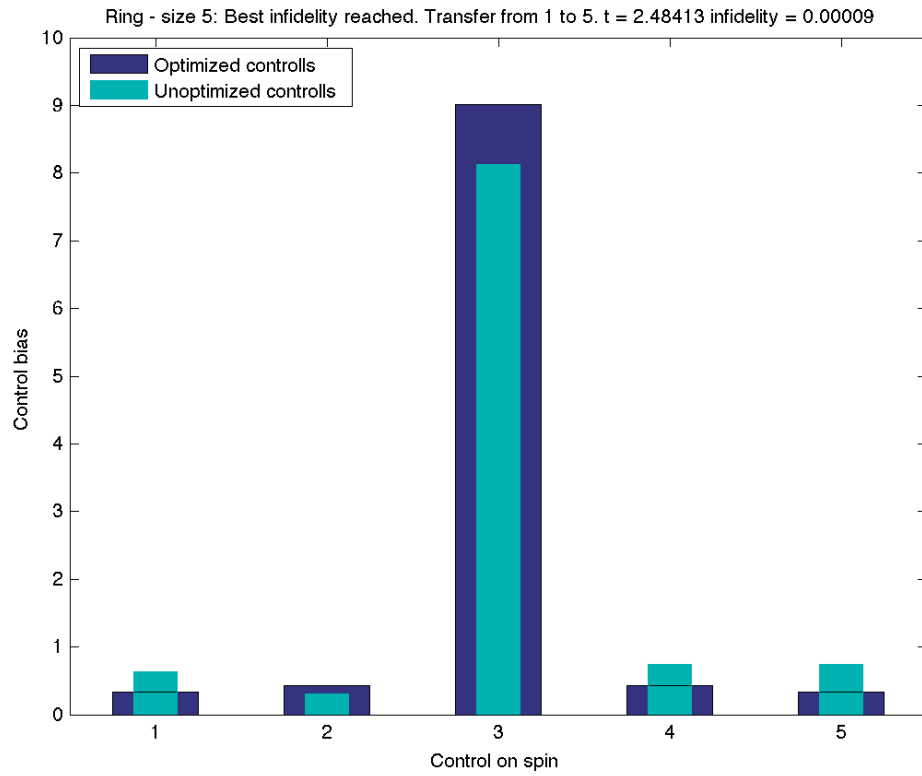
Spin network controls produced

Ring of 5 spins

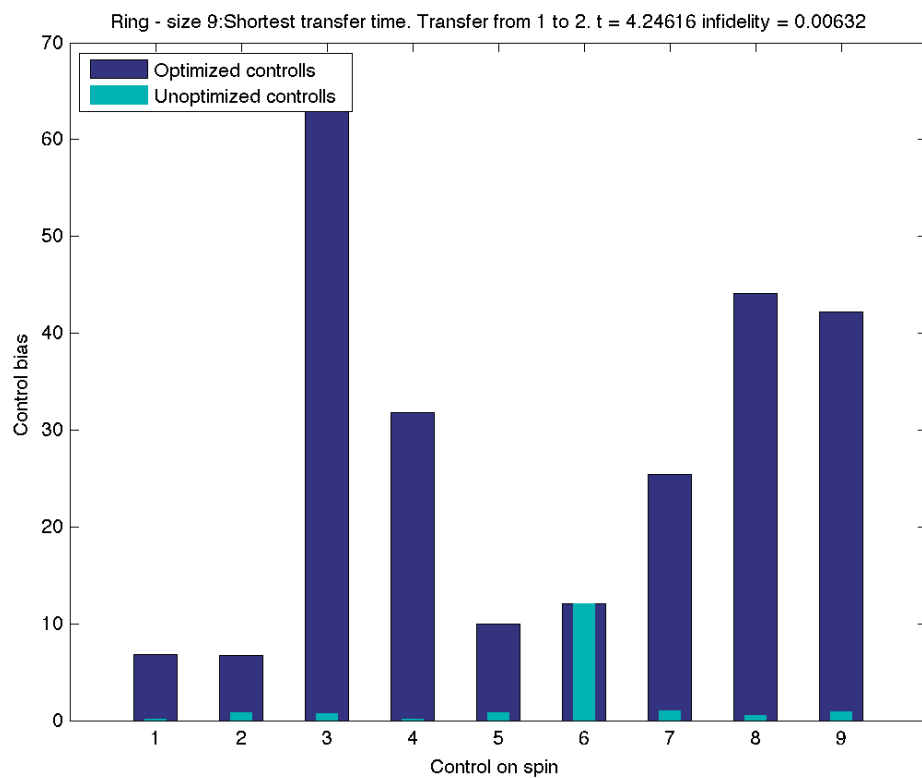
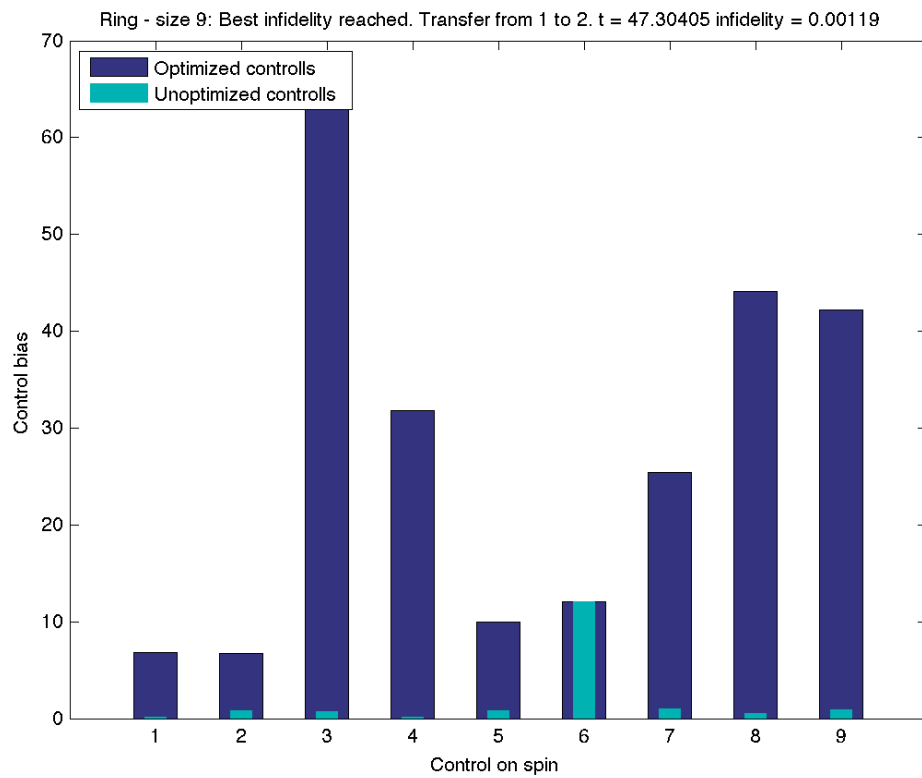


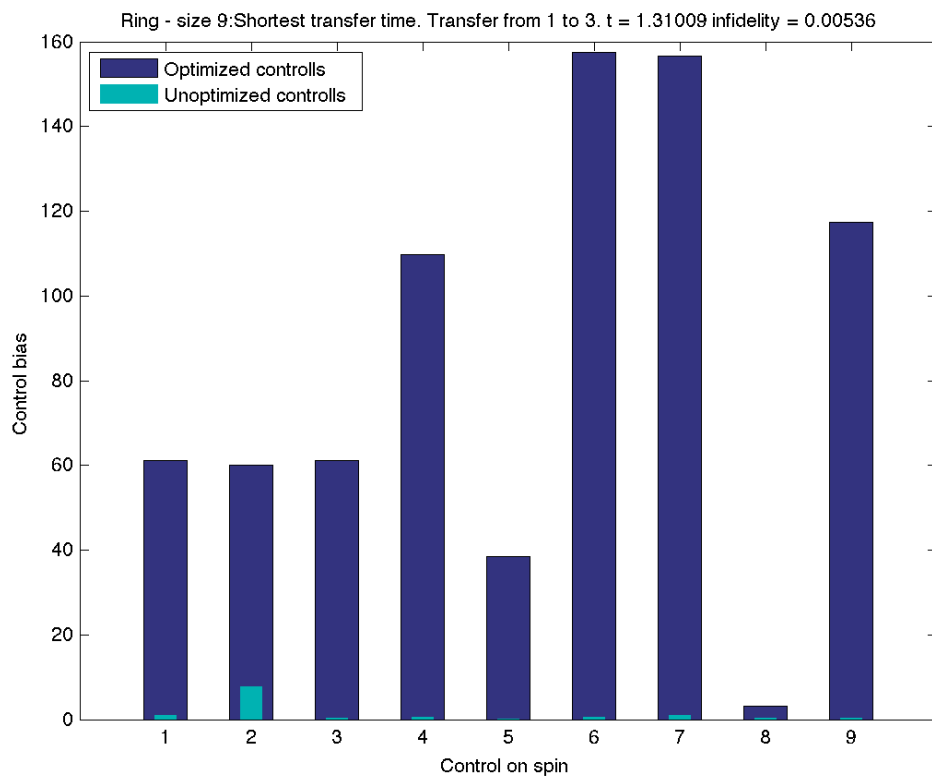
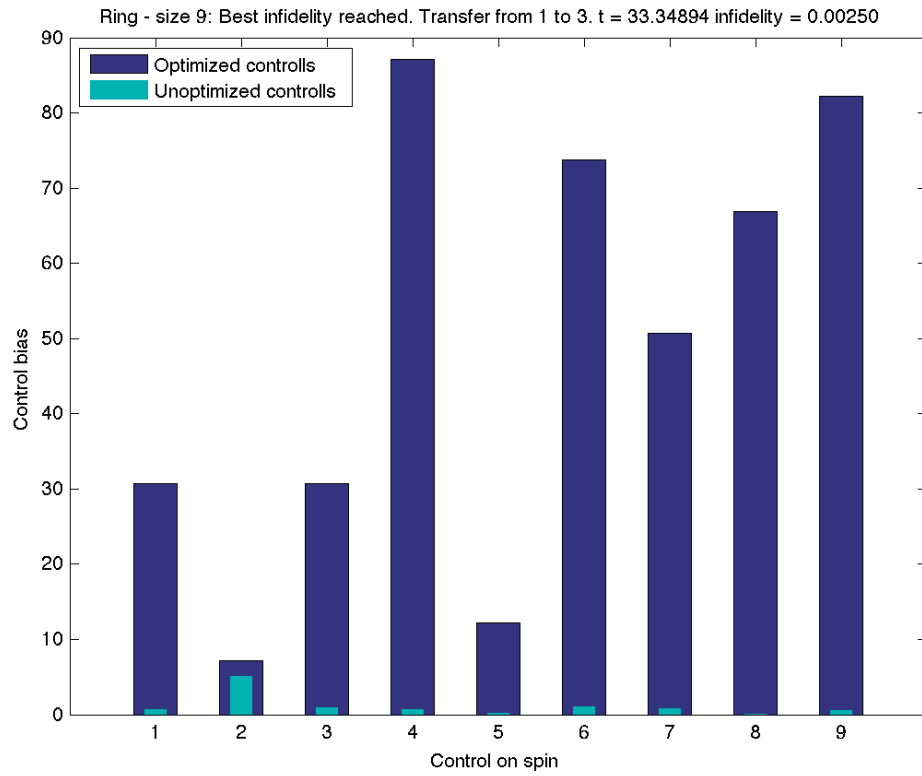


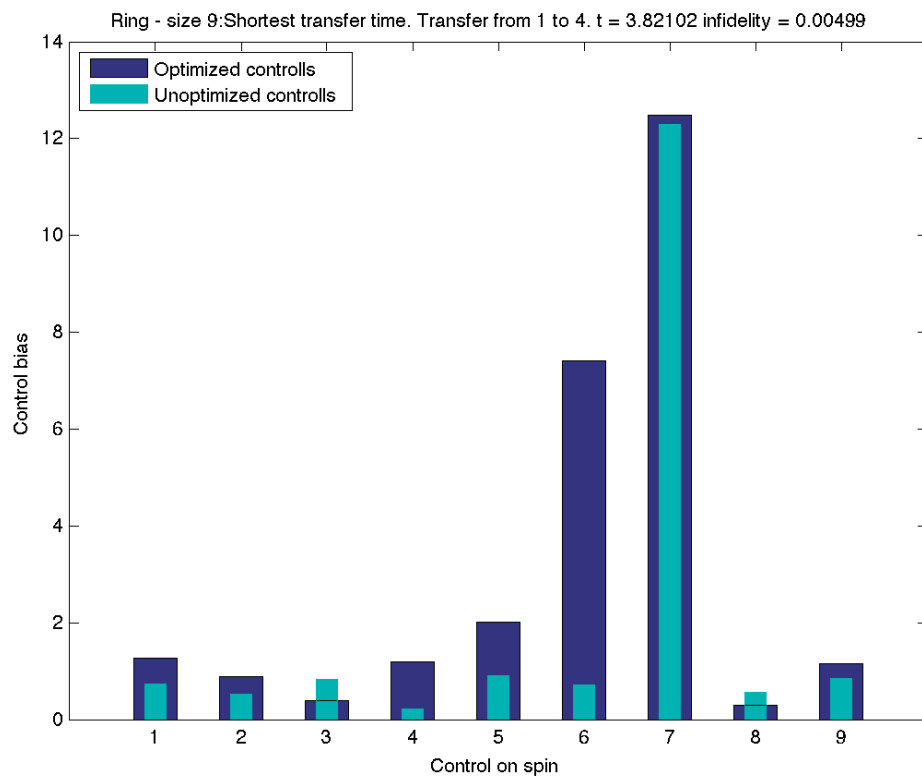
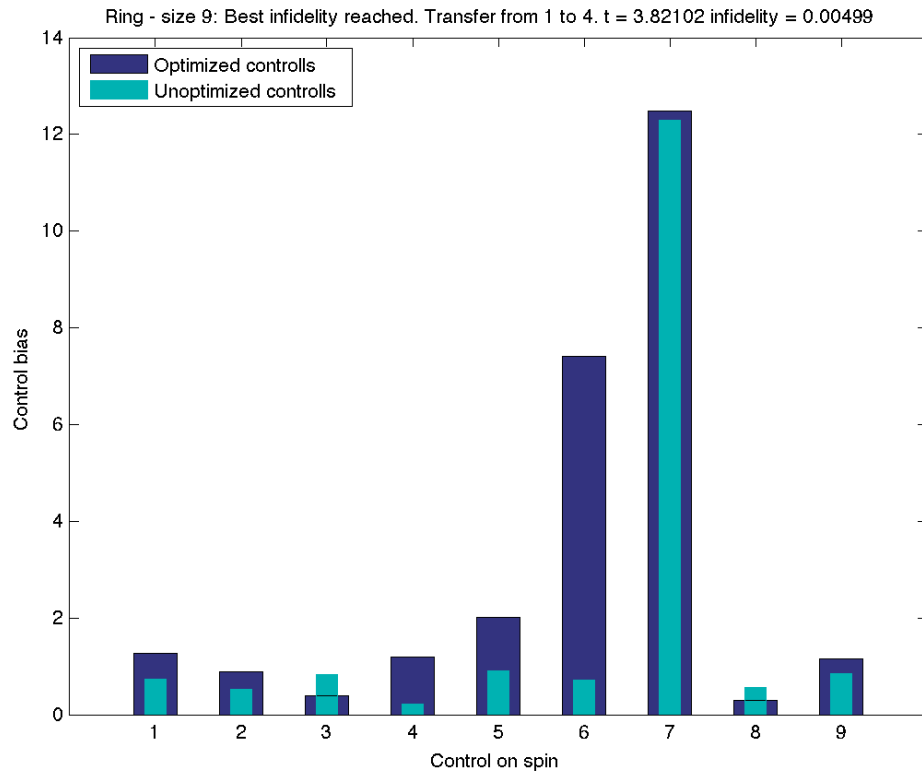


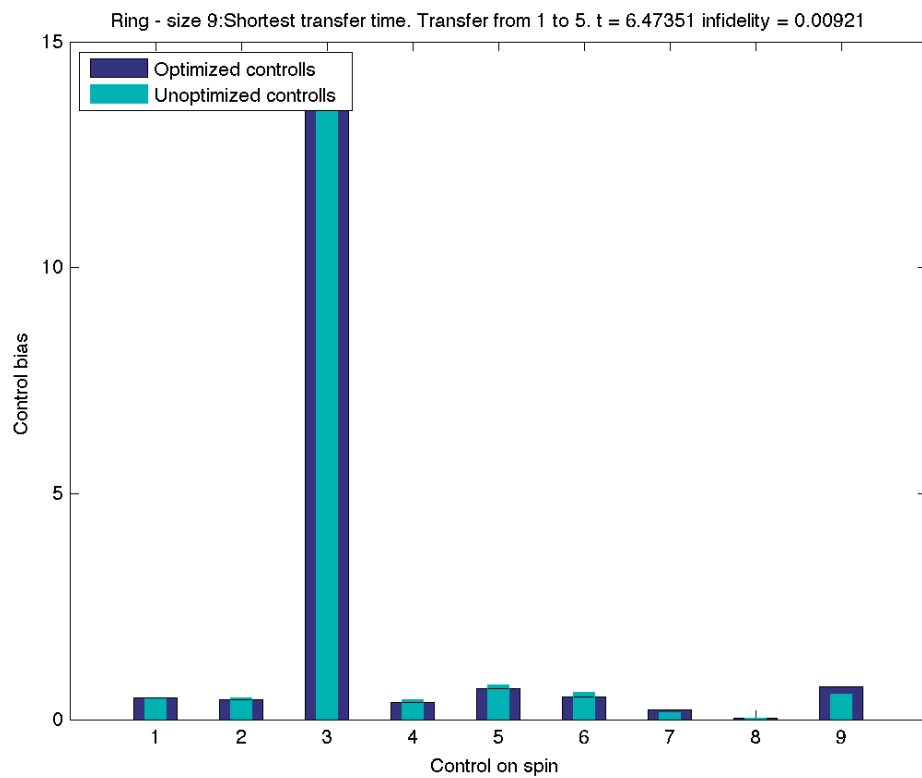
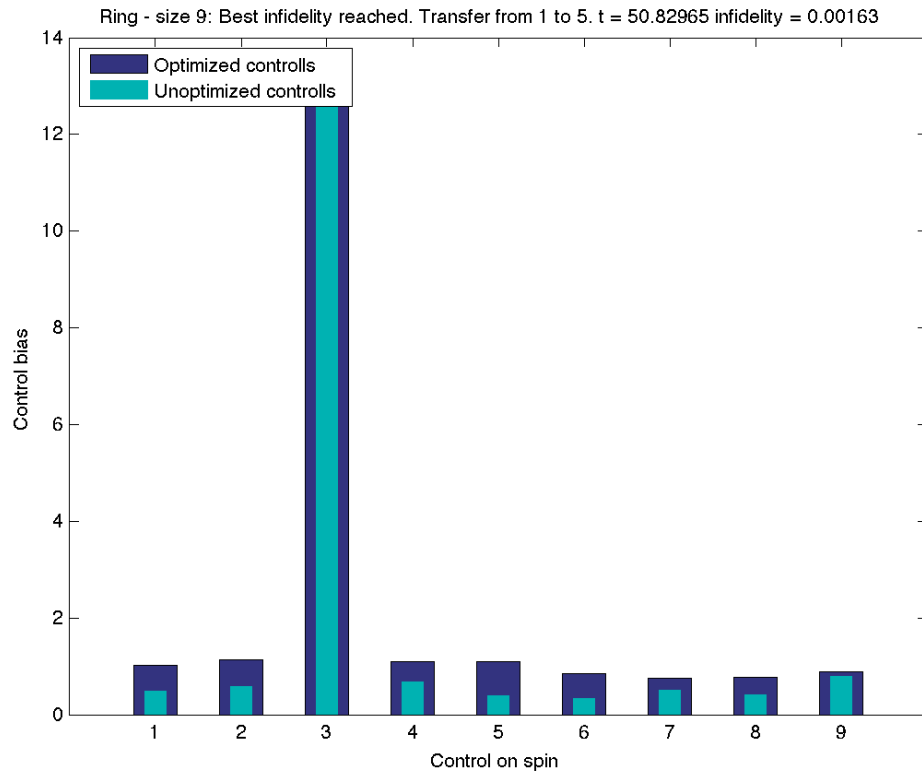


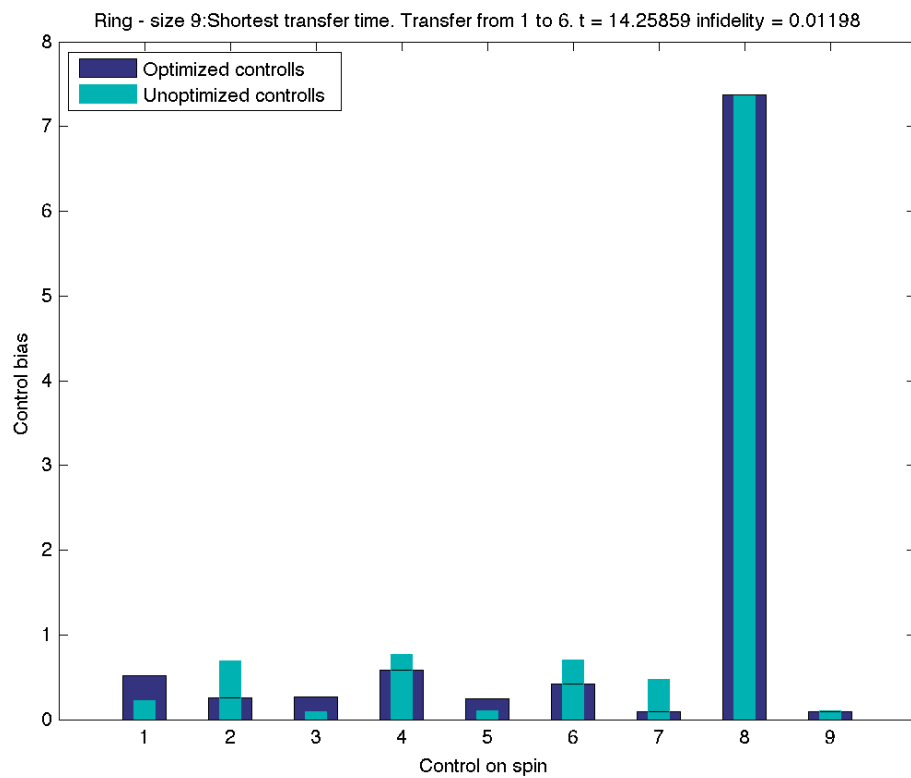
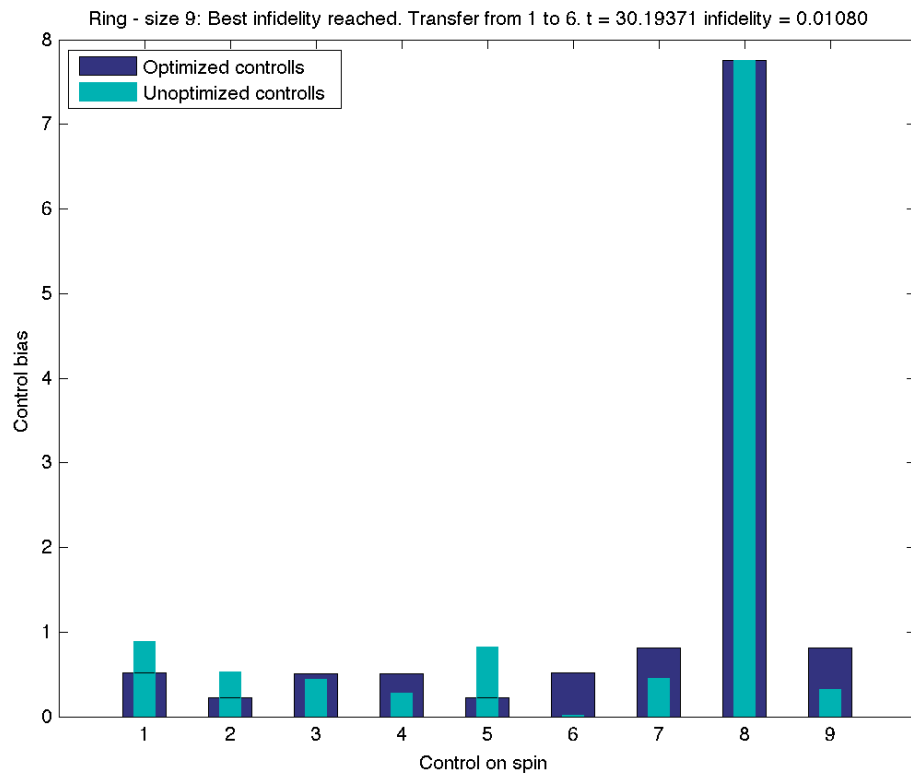
Ring of 9 spins

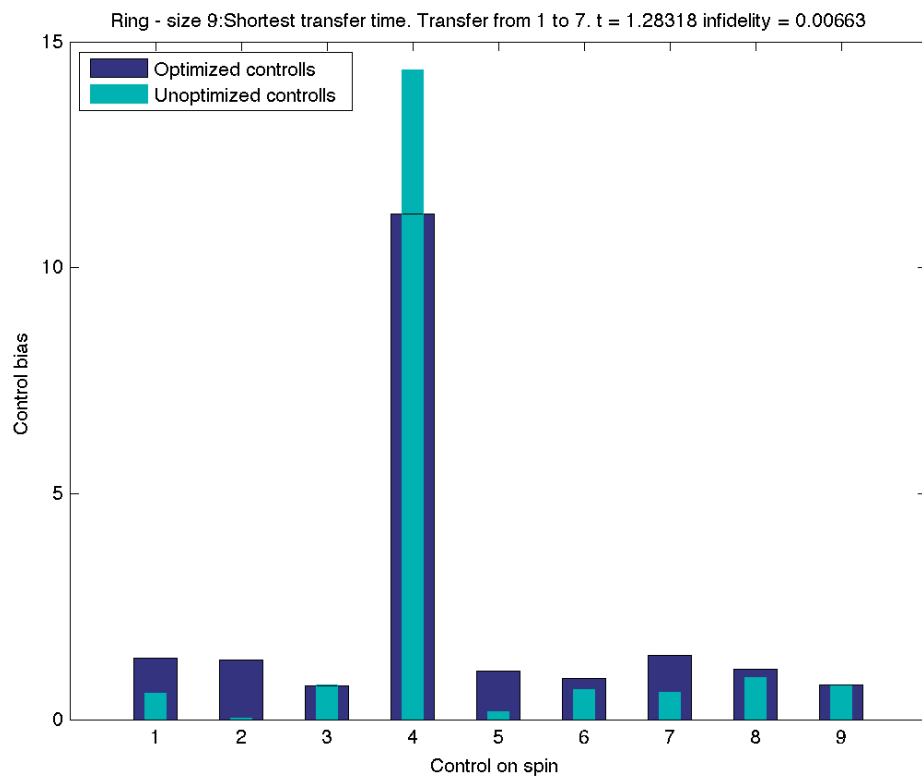
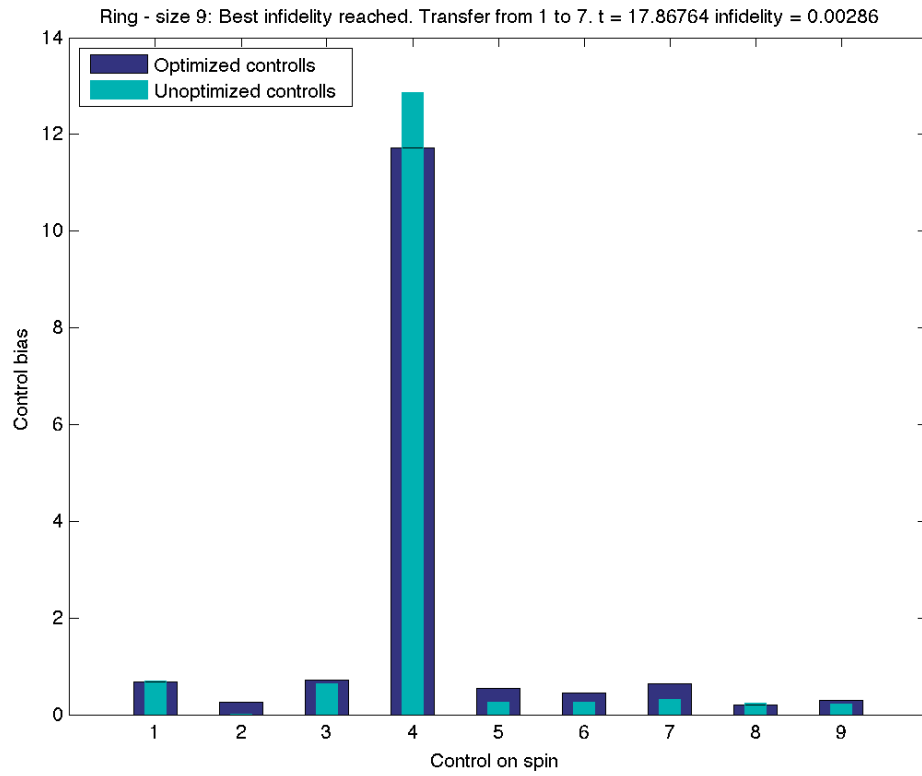


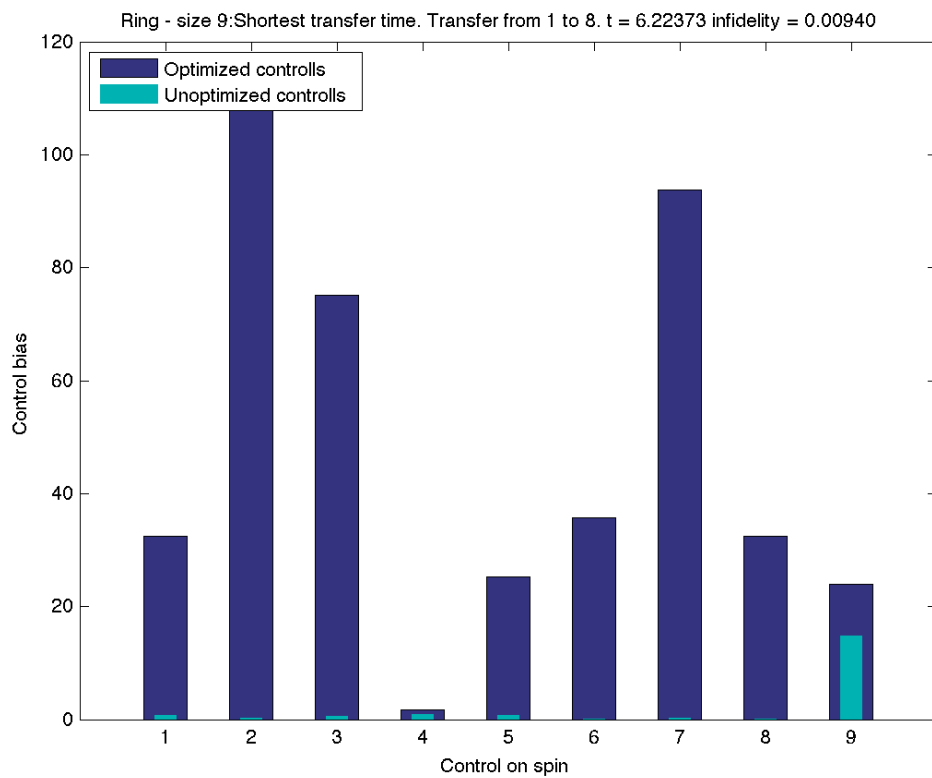
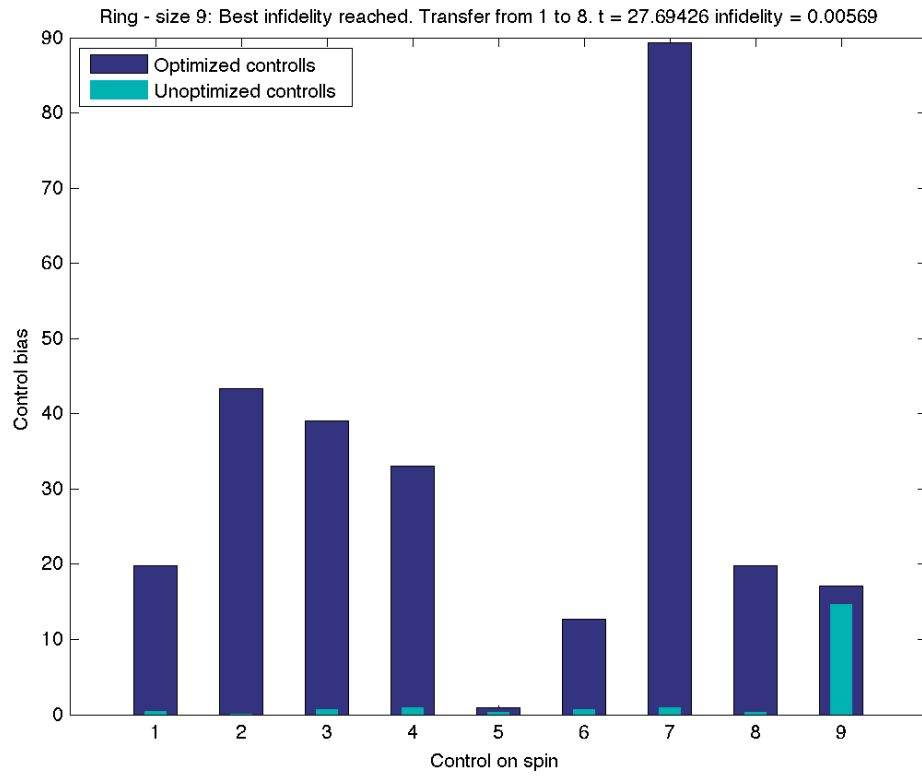


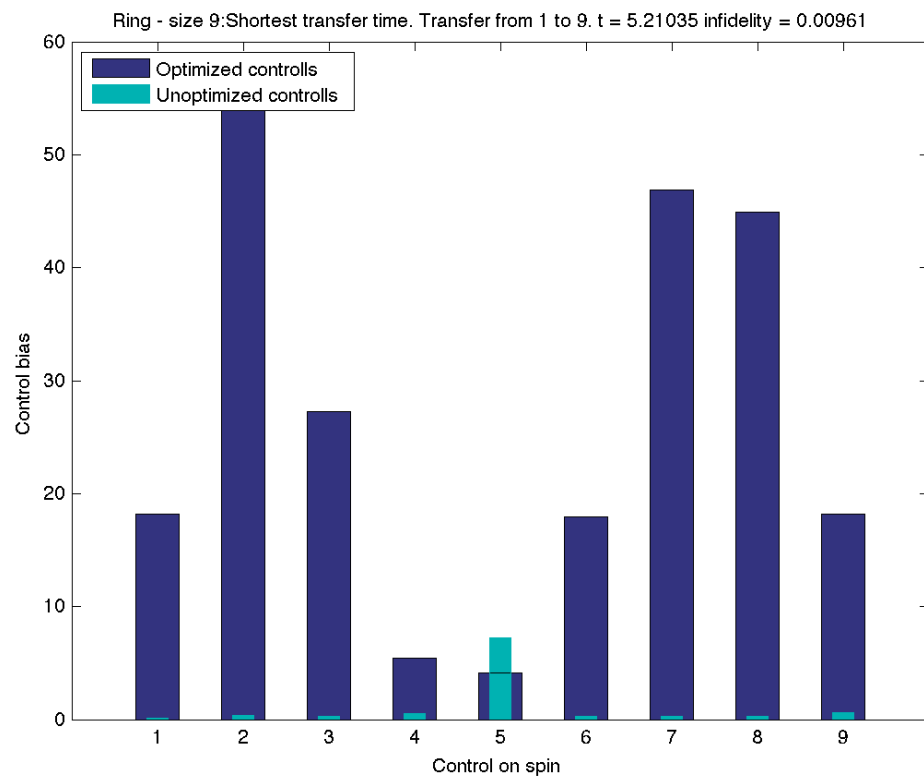
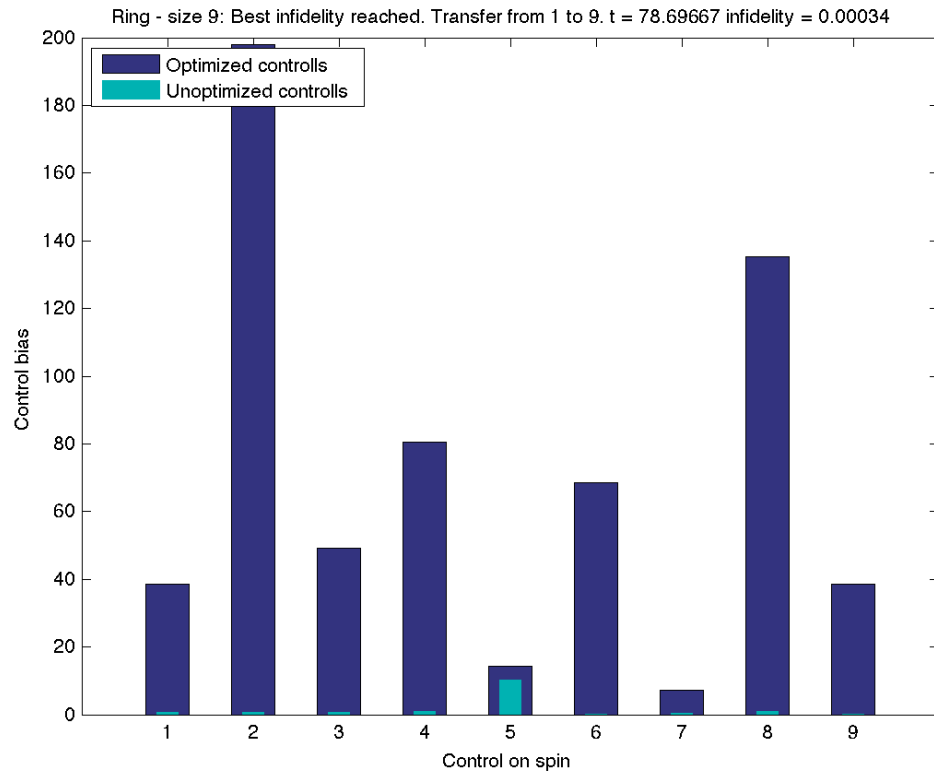












Ring of 13 spins

