



University of the Witwatersrand  
School of Electrical and Information Engineering

ELEN4020: Data Intensive Computing

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## Laboratory Exercise 2

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## 1. Matrix Transposition

## 2. OpenMP

## 3. PThreads

## 4. Comparison of Performance

Table 1: Performance of the algorithm using 4 threads

	$N_0 = N_1 = 128$	$N_0 = N_1 = 1024$	$N_0 = N_1 = 8192$
PThread			
OpenMP			

Table 2: Performance of the algorithm using 8 threads

	$N_0 = N_1 = 128$	$N_0 = N_1 = 1024$	$N_0 = N_1 = 8192$
PThread			
OpenMP			

Table 3: Performance of the algorithm using 16 threads

	$N_0 = N_1 = 128$	$N_0 = N_1 = 1024$	$N_0 = N_1 = 8192$
PThread			
OpenMP			

Table 4: Performance of the algorithm using 64 threads

	$N_0 = N_1 = 128$	$N_0 = N_1 = 1024$	$N_0 = N_1 = 8192$
PThread			
OpenMP			

## REFERENCES

Table 5: Performance of the algorithm using 128 threads

	$N_0 = N_1 = 128$	$N_0 = N_1 = 1024$	$N_0 = N_1 = 8192$
PThread			
OpenMP			

## Appendix