

## CS 6363: Advanced Compiler Construction

Mar 1, 2010

You Name:

1. What condition must be satisfied for it to be possible to improve the cache locality of an input computation? What condition must be satisfied for it to be possible to improve the memory access latency of an input computation?
2. What is the difference between temporal and spatial reuse of data?
3. What is the goal of the blocking transformation? In order for blocking to work properly, what condition must be satisfied?
4. Because blocking is extremely sensitive to the underlying machine architecture, the transformation needs to be parameterized so that it can be easily adapted for different architectures. What aspects of the transformation should be parameterized?