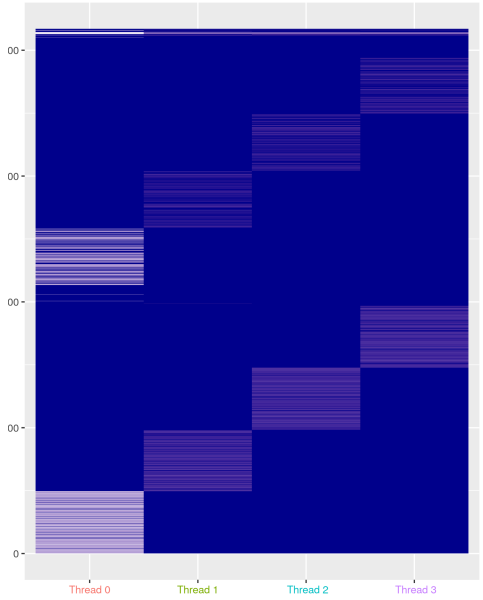
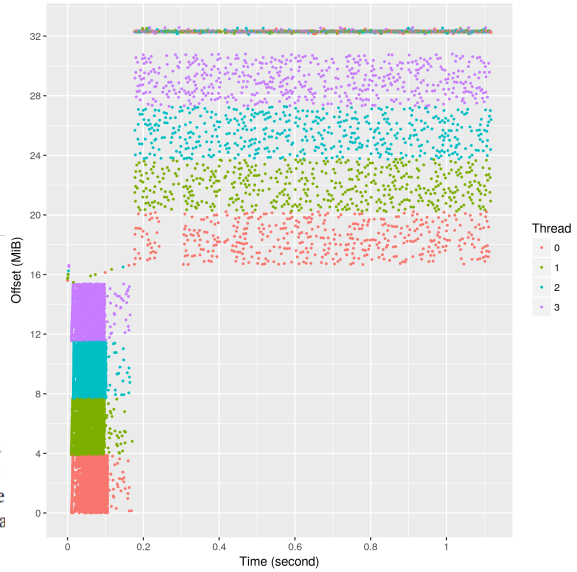
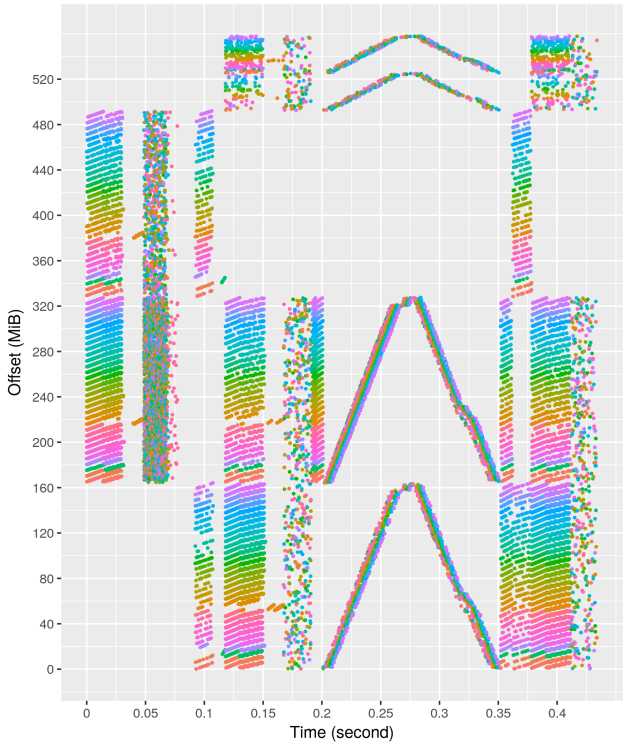
Inspecting Memory Access Patterns with NumaMMA







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NumaMMA: NUMA MeMory Analyzer

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ABSTRACT

Non Uniform Memory Access (NUMA) architectures are nowadays common for running High-Performance Computing (HPC) applications. In such architectures, several distinct physical memories are assembled to create a single shared memory. Nevertheless, because there are several physical memories, access times to these memories are not uniform depending on the location of the core performing the memory request and on the location of the target

1 INTRODUCTION

Because symmetric memory architectures do not scale up with the number of cores, modern multicore architectures have non-uniform