综述题目:

基于非易失内存的文件系统

内容提要:

1. 简要介绍目前常见的非易失存储器，如PCM，ReRAM, sttRAM等；然后通过技术参数对比，分析目前常见的非易失存储器的特性(若读写不均衡，延迟等等)
2. 分析非易失内存对于文件系统来说的革新来自于持久化路径的缩短；然后阐述若在非易失内存上构建本地文件系统所带来的数据一致性问题以及并发访问的控制，这些将穿插在对于具体的已有非易失内存下的文件系统(如Nova, PMFS,SIMFS)的研究综述以及对于特定场景的优化研究综述里介绍
3. 然后对前一部分的本地单机文件系统拓展，然后做更进一步的推进，也即综述非易失内存与RDMA结合构建分布式的文件系统的研究；再这一部分还将分析RDMA技术与持久内存可以完美结合的底层原理；同时，也将继续讨论分布式系统下的数据一致性问题和并发访问控制
4. 最后是对于综述的总结和展望，将会对上述的研究部分做出总结，同时将给出我们小组对于非易失内存文件系统研究的一个展望

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