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Keeping up with Storage: Decentralized, write-enabled dynamic geo-replication

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***Highlights (for review)**

We propose a decentralized data popularity measurement method to identify hot data cluster-wide

We describe a dynamic data replication algorithm which dynamically creates and manages replicas of hot data

We enable clients to tentatively locate the closest of such data replicas using an approximate object location method

We describe how to handle writes to dynamically replicated objects, retaining the consistency of the storage system

We develop a prototype implementation leveraging the above contributions and prove our approach with a large-scale experimental study