## **HEPiX Spring 2025 Workshop**



Contribution ID: 67 Type: not specified

## Online Seamless HDD Self-Healing Options & Capabilities

Wednesday 2 April 2025 15:10 (20 minutes)

o The most common mechanical failures in today's modern HDDs in the datacenter are no longer due to motor/actuator failures of head crashes. The great majority of these failures are due to Writer head degradation with time and heat, a small minority to Reader failures and a very small number of failures are due to other causes. The scope of this presentation is to present and discuss the various methods and options we have at our disposal to mitigate these various head failure scenarios without causing the drive to be replaced or completely reformatted and the data getting rebuilt by the host software at the system level, thus causing a significant amount of data traffic and reducing the overall resiliency, availability and reliability of the overall storage solution. We currently have many options in our toolbox to address the impact of these head failures and resolve them while the drive and the majority of its data can be preserved. We will discuss these various solutions and point out the pros and cons of each implementation as some of these solutions require host management and some can be done seamlessly.

## Desired slot length

## Speaker release

Yes

Author: STEVENS, Curtis

Co-author: BERGMANN, Hugo (Seagate Technology)

Presenters: STEVENS, Curtis; BERGMANN, Hugo (Seagate Technology)

Session Classification: Storage & data management

Track Classification: Storage & data management