HEPiX Autumn 2023 Workshop



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Sustainable Immersion Cooling for HPC: The Path to Energy Efficiency and Environmental Responsibility

Tuesday 17 October 2023 14:00 (25 minutes)

Join Eliot Ahdoot, Chief Innovation and Sustainability Officer at Hypertec, as he explores sustainable immersion cooling solutions in HPC. In this talk, Eliot will unveil an innovative approach that not only enhances performance but also champions environmental responsibility.

The world of scientific computing faces a persistent challenge: energy consumption. Eliot's presentation centers on a game-changing solution - Immersion Cooling. As data centers push their servers to greater power densities, a near-future surge (of at least three times) in server power requirements will overwhelm traditional air-cooling methods. With a drastic rise in global server numbers, cost reduction and the extension of infrastructure lifespan are becoming imperative.

As sustainability takes center stage in economic policies and global consciousness, every research lab and university concerned about our planet's survival and future generations' well-being must adopt environmentally friendly practices.

Key Highlights:

• Unlocking Immersion Cooling's Potential: Explore how immersion cooling operates and redefines efficiency in HPC environments. Real-world examples will highlight significant energy savings and the limitless scalability it offers.

• Environmental Impact Assessment: Delve into the eco-friendly aspects of immersion cooling, including reduced water consumption, lower carbon emissions, and a smaller environmental footprint. Discover how these solutions align with global sustainability objectives.

• Practical Steps Toward Sustainability in HPC: Gain actionable insights for integrating immersion cooling into your HPC infrastructure. Explore best practices, cost-effective strategies, and the roadmap to a greener future.

By the end of this presentation, you will have a comprehensive understanding of how immersion cooling can revolutionize the sustainability of HPC facilities. This innovation contributes to both scientific excellence and a more eco-conscious world. Join us in this crucial conversation, where technology meets sustainability to shape a brighter future for scientific computing.

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