

## Keynote: From Data Blocks to Code Snippets: Boosting HDF5 with GitHub Copilot

*Tuesday 27 May 2025 13:20 (40 minutes)*

Working with HDF5 often means navigating large datasets, verbose APIs, and boilerplate-heavy code. In this demo-heavy session, we'll explore how AI-assisted coding tools—specifically GitHub Copilot—can accelerate common HDF5 workflows across C, C++, and Python. From auto-generating read/write boilerplate, to documenting complex structures, to scaffolding tests and data conversion routines, Copilot is more than autocomplete—it's your new lab assistant.

We'll walk through examples, showing where Copilot shines, where it struggles, and how to make the most of it in a scientific or engineering context.

Whether you're wrangling metadata, porting legacy scripts, or just tired of writing `H5Fopen()` for the hundredth time—this session will show you how AI can actually help.

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