NumPy updates - SciPy 2023

In 1.25.0:

- You can now build against 1.25.0 and at runtime use older NumPy versions
- Wheels for MUSL
- Two new specialized namespaces, `numpy.exceptions` and `numpy.dtypes`

In both 1.24.0 and 1.25.0, we focused on performance:

- `ufunc.at` up to 9x faster
- call overhead of many functions was improved
- a lot of SIMD improvements, in particular using AVX512 on x86, better NEON support on 64-bit ARM, and new support for IBM zSystems

NumPy

NumPy updates - SciPy 2023

- Dec'22: our first [Developer in Residence](#) position
- NumPy docs team is now led by Ross Barnowski and Mukulika Pahari
- 2023 Google Season of Docs (NumPy comics by Mars Lee are coming!)
- new maintainers: Mukulika Pahari, Nathan Goldbaum

Forward-looking:

- We decided to do a **2.0 release** in Dec/Jan!
- Request to all package authors: please add a `<2.0` constraint to build and runtime requirements, and plan to release an updated version of your package once there are release candidates for numpy 2.0
- There will be a numpy 1.26.0 release in between, which switches the build system to Meson. This will be the first release that supports Python 3.12
- numpy.org translations are almost here