

# 1<sup>st</sup> international workshop on **hardware acceleration of functional and declarative languages**

## *Call for Participation*

The call for participation in the 1<sup>st</sup> International Workshop on Hardware Acceleration of Functional and Declarative Languages (HAFDAL) is now open.

HAFDAL '24 is hosted in conjunction with the International Symposium on High-Performance Computer Architecture (HPCA) 2024 — see [hpca-conf.org/2024/](https://hpca-conf.org/2024/) for details. The event will be hosted in Edinburgh, UK, March 2024.

### Scope

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The 1960s and 1970s saw LISP machines for supporting AI workloads. The 1980s saw graph reductions machines for functional language workloads. After a 30 year lull, modern hardware technology has attracted renewed interest in hardware acceleration of high level languages. This workshop brings together computer architects and programming language implementers to identify software/hardware co-designs of these high level execution models.

This workshop invites two forms of participation: (1) full paper submissions for 30 minute talks, (2) 5-10 minute lightning talks about related projects and early results. For full papers, we are looking for submissions that cover the motivation, design, or real-world application of hardware technology for functional/declarative languages, their compilers and runtime systems. The work should target truly custom (e.g. ASIC/FPGA) hardware, or exploit modern hardware features for functional/declarative language implementation, across the design space of:

- Special-purpose processor architectures for functional or declarative languages.
- Automatic, high-level synthesis of custom accelerators from plain, high-level software functions.
- Hardware description languages embedded in, or hosted by, high-level software languages.

Submitted papers will be reviewed by our Programme Committee. Our intention is to publish accepted papers via a major relevant publisher (details confirmed pending approval).

### Key Dates

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**Paper submission deadline** 20 November 2023

**Author notification** 18 December 2023

**Final manuscript due** 15 January 2024

**Workshop** March 2024

### Submission Instructions

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The EasyChair submission page for this workshop is [easychair.org/conferences/?conf=hafdal24](https://easychair.org/conferences/?conf=hafdal24).

Submissions should be 8-10 pages in ACM double-column format. Authors should follow the information for formatting ACM SIGPLAN conference papers, which can be found at [acm.org/publications/proceedings-template](https://acm.org/publications/proceedings-template). Full submission details are on the workshop web page: [haflang.github.io/workshops/hafdal24.html](https://haflang.github.io/workshops/hafdal24.html).

Please email inquiries concerning the workshop to: [craig.ramsay@hw.ac.uk](mailto:craig.ramsay@hw.ac.uk).