

Welcome to ASAP 2026

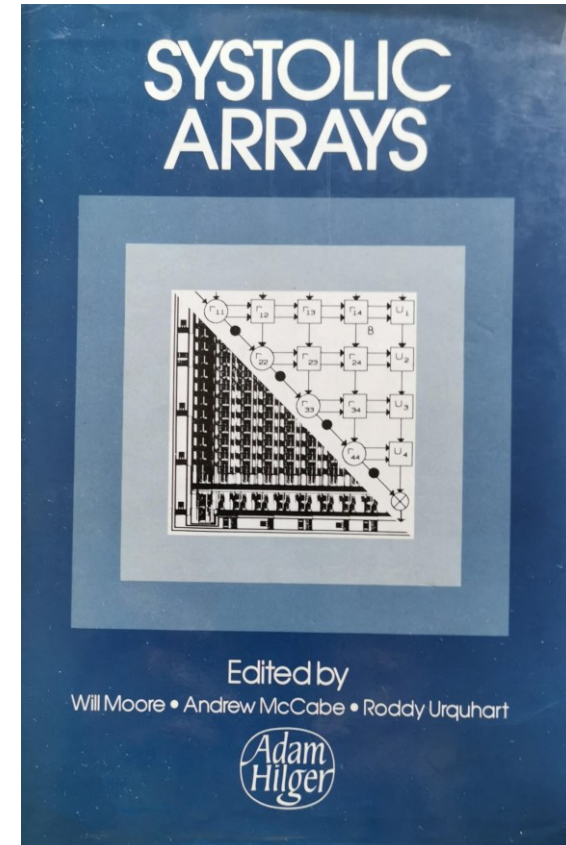
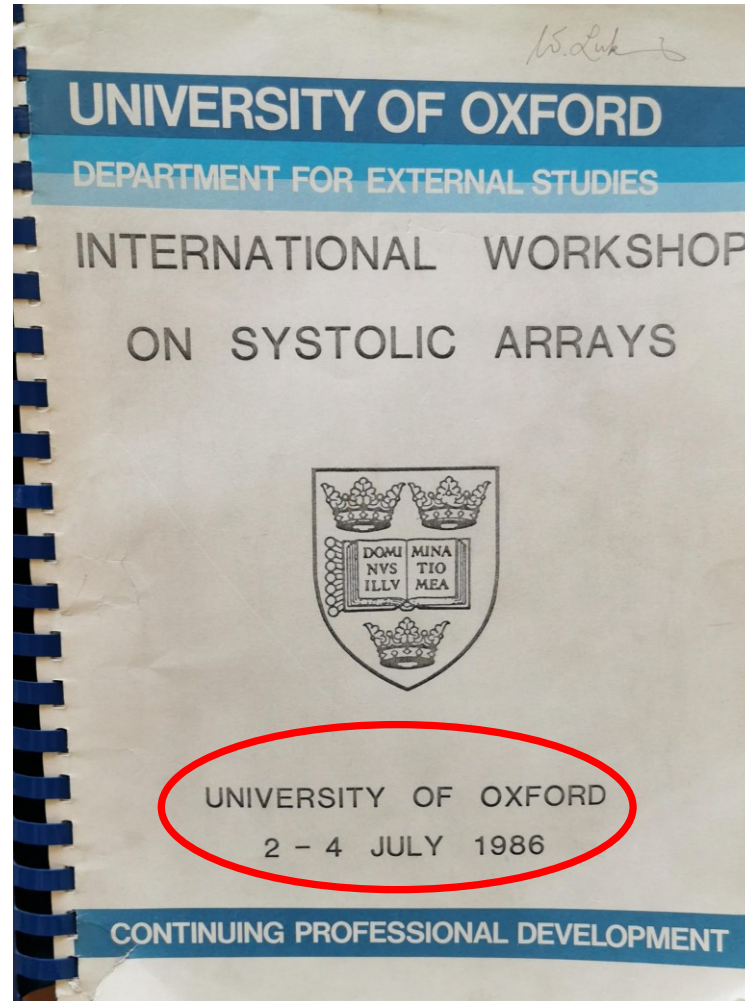
Celebrating 40 Years of ASAP

Wayne Luk and Peter Cheung, General Chairs

Hongxiang Fan and Suhaib Fahmy, Program Chairs



40 Years ago



40 Years ago

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My First Paper!

EXPLORING DESIGNS BY CIRCUIT TRANSFORMATION

make designs systolic by laws similar to those in Boolean Algebra

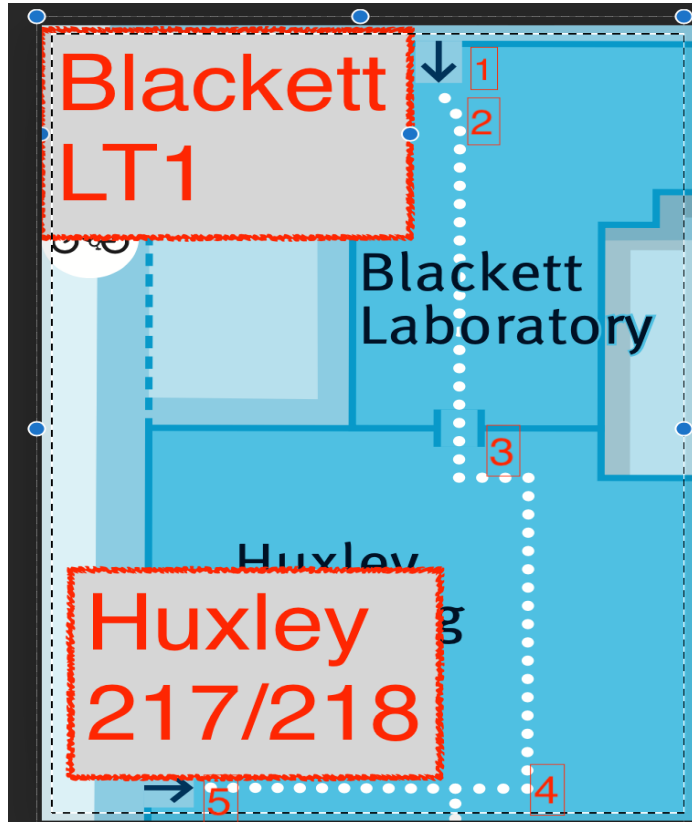
GERAINT JONES, WAYNE LUK

The benefits of applying mathematical methods to program design are seen not so much in the theorems and proofs about programs, as in the facility with which they enable the programmer to reason about his program during its design. We suggest that the same must be true of circuit design. This paper outlines a theory of orthogonally connected circuits, described by expressions in a functional programming language— μ FP.

The form and function of a circuit are related much as are the syntax and value of an expression. This relationship is used to give two interpretations to μ FP expressions: both as behaviours, the value of the expression being the function which is calculated by the circuit; and as abstract floorplans, in which the form of the expression describes the layout of an implementing circuit. Various forms of expression correspond to ways of laying out and connecting components, although we are not for the present concerned with details of sizes and positions. At the same time, the value of the expression is the function mapping input signals to output signals, which can be confirmed by direct calculation.

Orthogonally connected arrays of components stand as a general form of two- (and more) dimensional circuit, and the language contains operators for constructing rows of similar components, allowing descriptions of regular arrays. We quote some simple theorems about such

Posters, lunch, tea breaks: Huxley Building 217/218 (see info sheet)



From Blackett LT1:

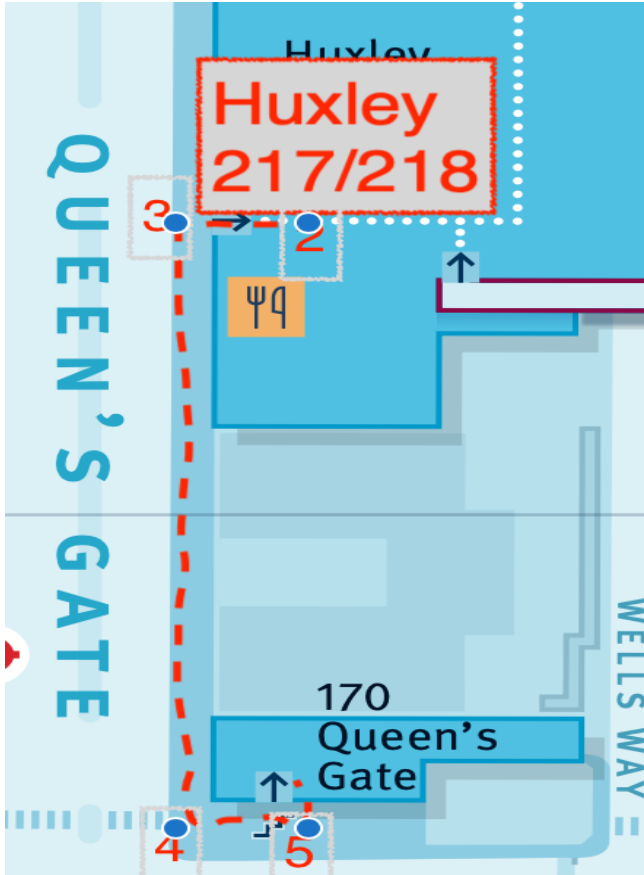
1. Ascend stairs to level 1 (or use nearby lift)
2. Follow wooden corridor through two sets of doors
3. Turn left, then immediately right
4. Go through two sets of doors
5. Turn right, descend stairs (or use lift on other side of stairs)
6. Huxley 217/218 is on right, through glass doors, and turn left

Please make sure you wear your badge

Conference dinner: 170 Queen's Gate



Conference dinner: 170 Queen's Gate (see info sheet)



From Huxley 217/218:

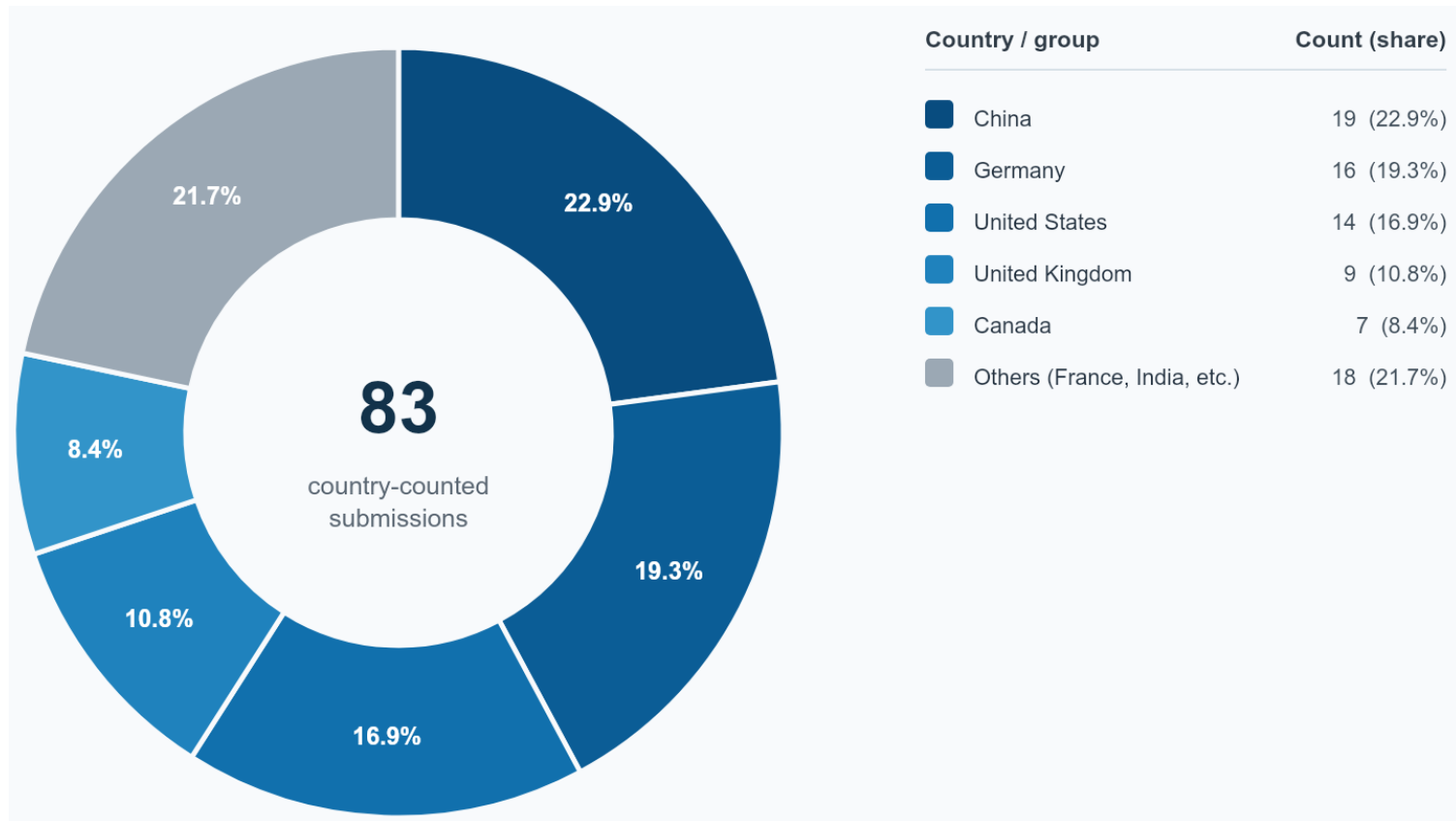
1. Turn right, go through glass doors into foyer
2. Exit into street (Queen's Gate)
3. Turn left, head 200 meters
4. Turn left at next street
5. 170 Queen's Gate is on your left
6. If the door is locked, use pin code 976#

Please make sure you wear your badge

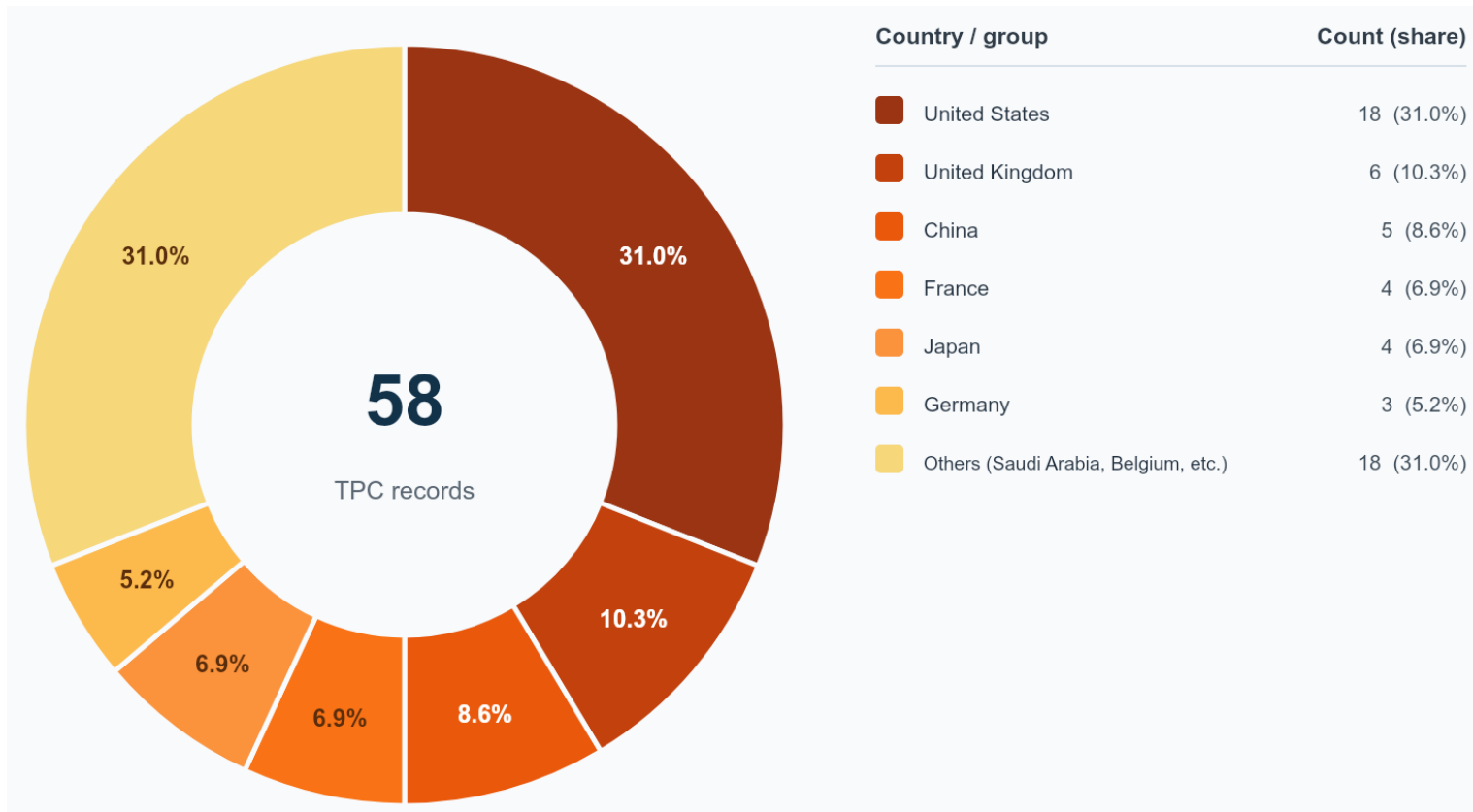
ASAP2026 Program

- 83 submissions
- 75 valid submissions which were reviewed
- 56 PC members
- averaged 3.82 reviews per paper
- final program:
 - 17 full papers
 - 5 short papers
 - 13 poster papers

ASAP2026 Submission Distribution (by country)



ASAP2026 TPC Distribution (by country)



ASAP2026 Program

- from 83 submissions:
 - 17 full papers
 - 5 short papers
 - 13 poster papers
- 4 keynotes: speakers from Stanford, NUS, DeepMind, NVIDIA
- 1 tutorial: AlxSIM project
- 2 panels
 - ASAP Advances – the Last 40 Years
 - ASAP in 2066

Many thanks to all those who help

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- Local arrangements: Tim Todman, Bowen Kwan, Quan Deng, Shuang Liang, Omar Tahir, Terry Wang, Filip Wojcicki, Bakhtiar Zadeh, Zehuan Zhang, Abbas Ziad

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Enjoy ASAP 2026!

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