ASPLOS 2014

Program Chair's Report

Goals

Move the field forward

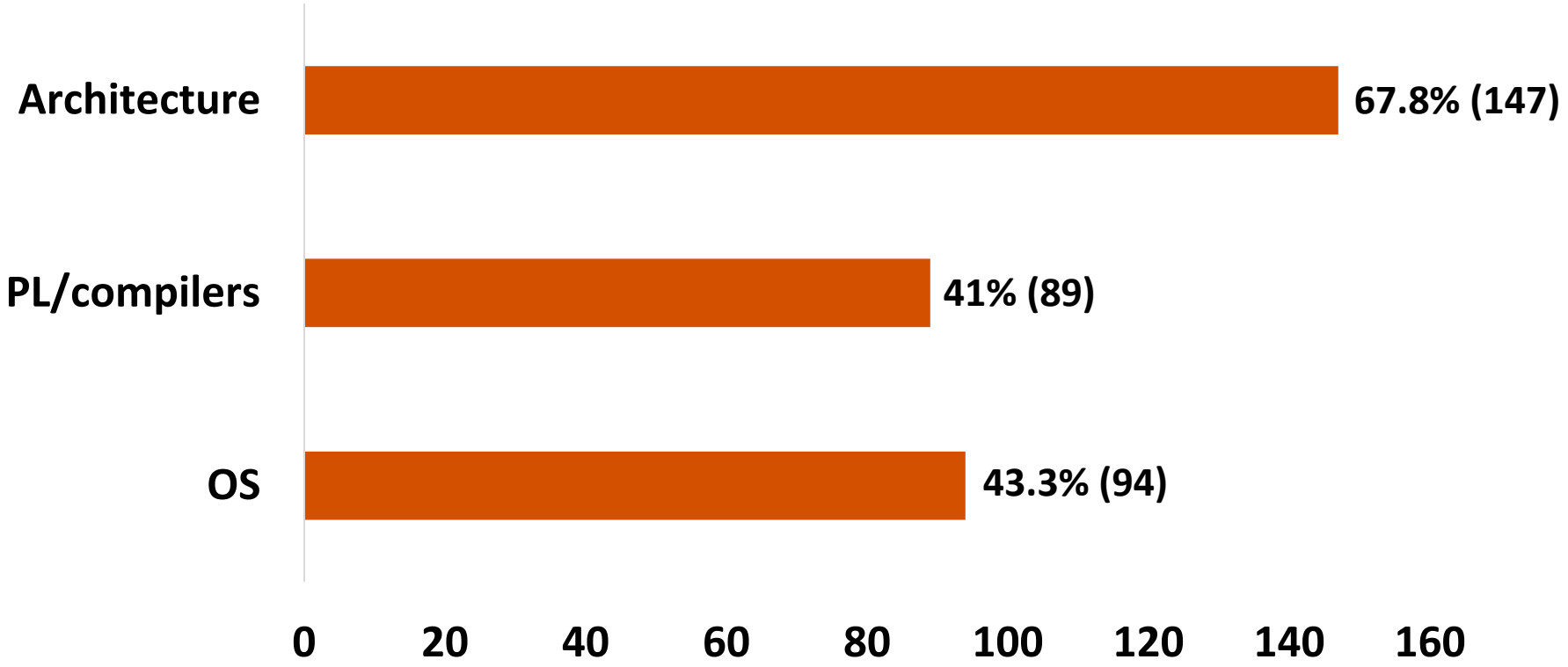
Continue as a broad, multidisciplinary conference

Continue to raise the bar for quality in review process

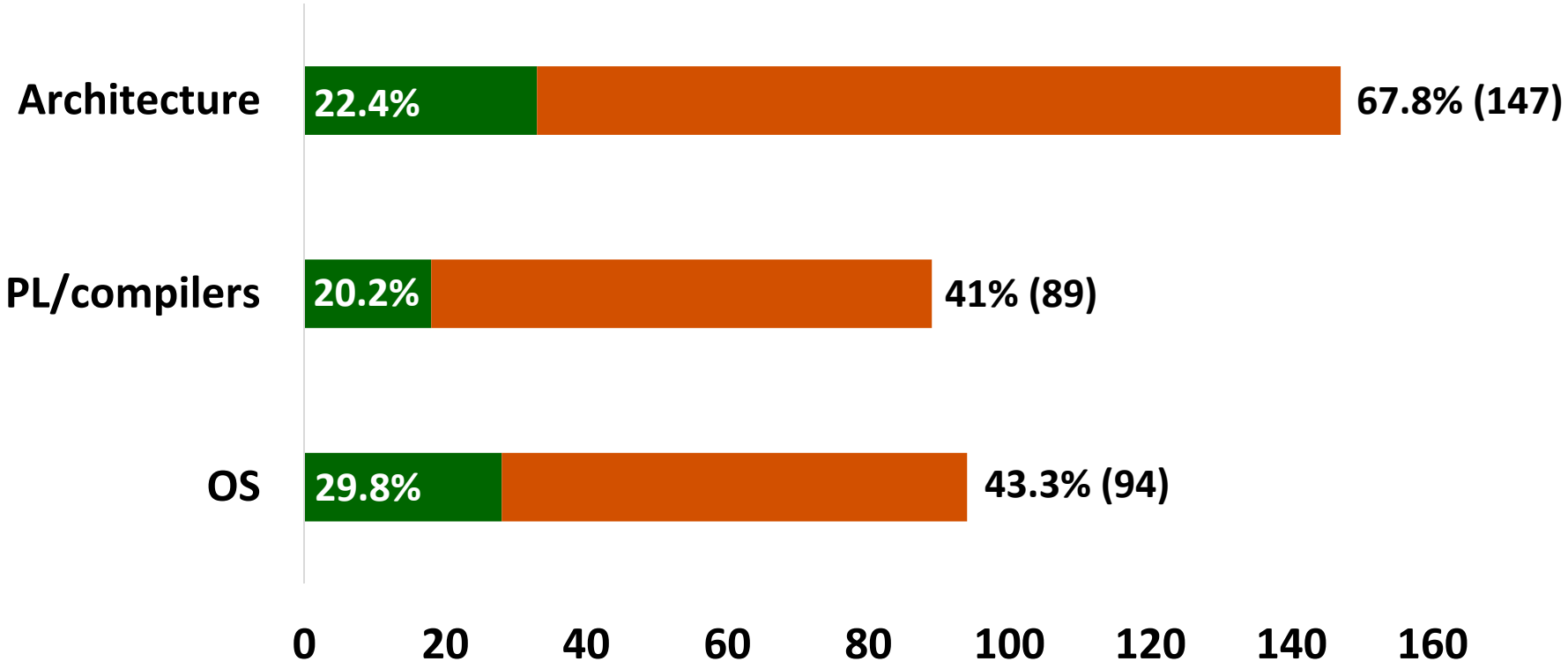
ASPLOS 2014 Papers

- Advertised CFP to non-traditional SIGs
  - SIGBED “in-cooperation”
- 217 submissions
  - 12% increase from last year, new record!
- 49 accepted papers,
  - 5 more than last year, same acceptance rate of 23%
  - 10 from PC out of 24 submissions

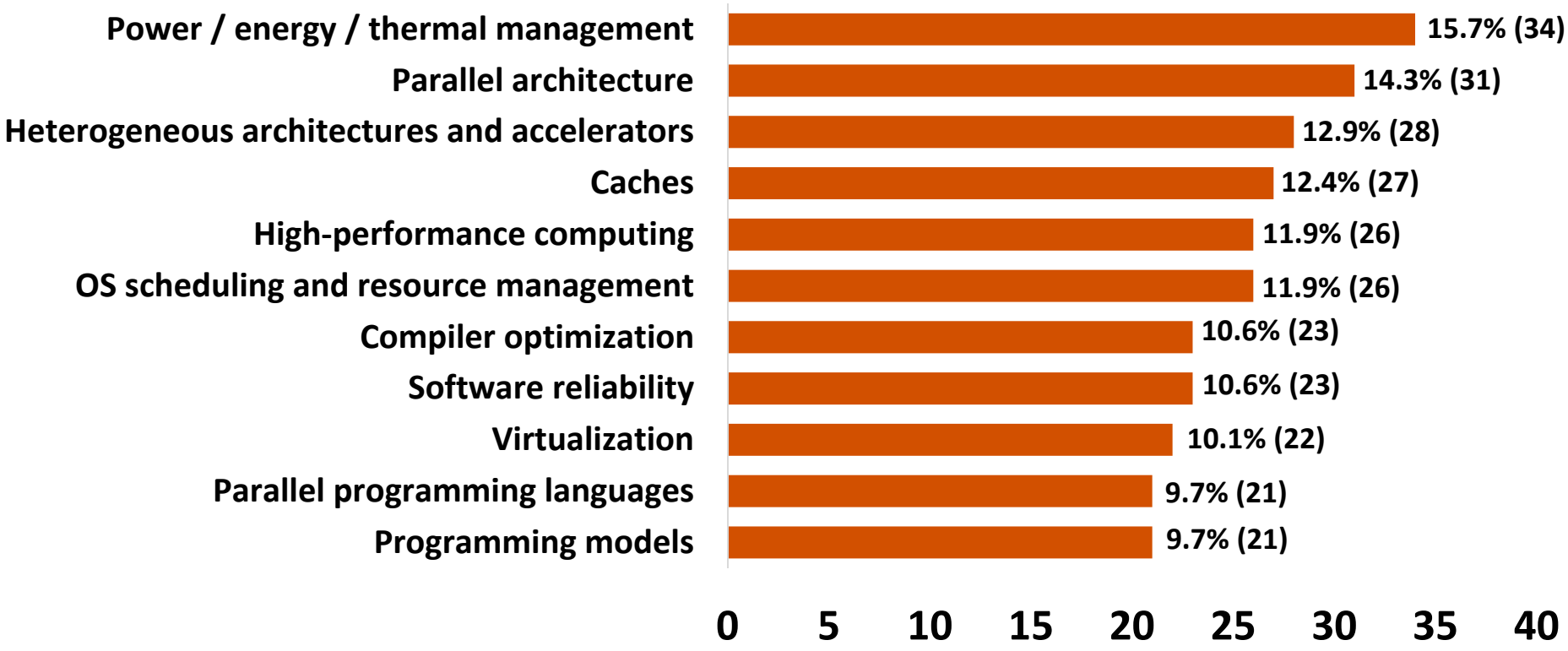
217 Submissions: AS PL OS?



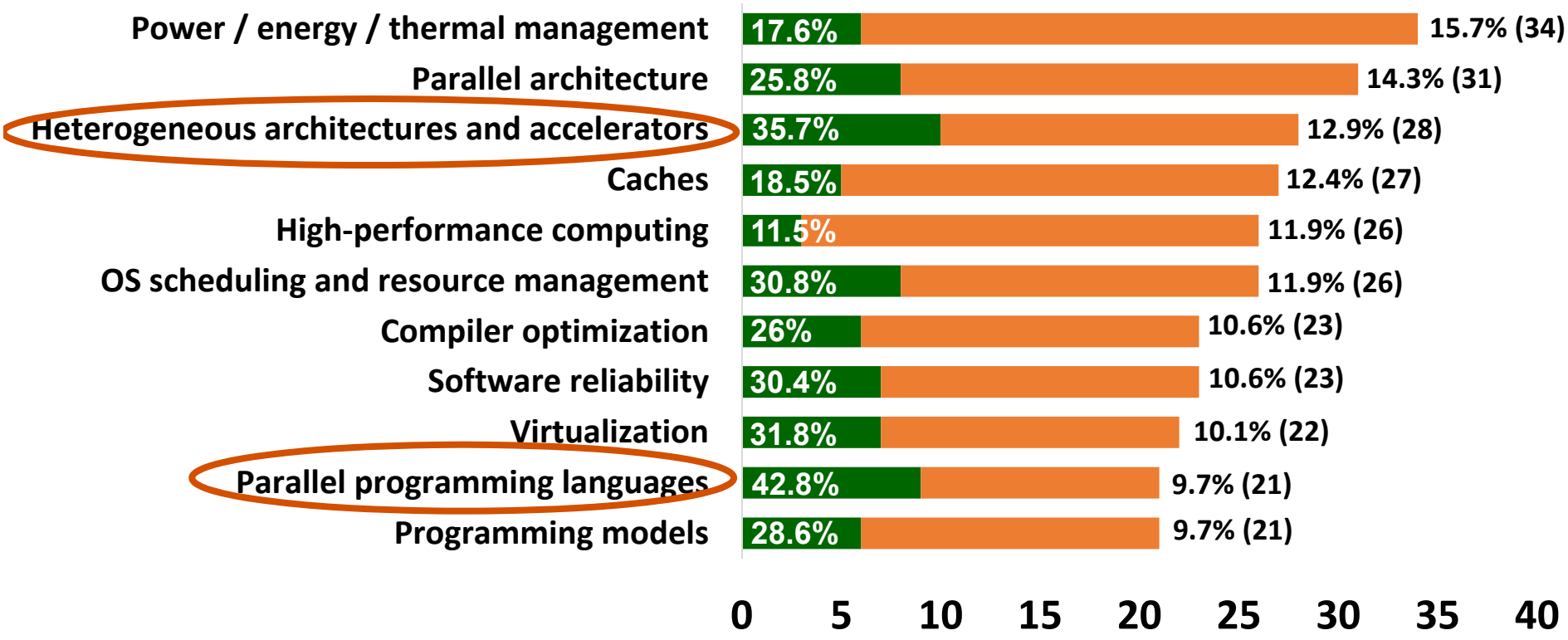
49 Accepts: AS PL OS?



Topics Identified by > 20 Submissions



Acceptance Rate for Top Topics



Review Process

- Phase 1
- Phase 2
- Author response
- Online discussion
- PC meeting

Tone

- All worthy papers will be accepted
- Goal is to move field forward, not look for perfection
- Expectation of high quality reviews from PC and ERC

  * Conference program AND author perspective

Phase 1 Reviews

- 2 PC + 1 ERC reviews

To terminate or not to terminate with 3 reviews???

Reduce burden on PC Informed decisions, Adequate author feedback

- Initial triage:
  - At least one accept score: move to phase 2
  - All rejects with high confidence: terminate at phase 1
  - Remaining 38 (no accept, some maybes/low conf): online discussion
- I read all red and yellow reviews (and many greens), nagged authors of low-quality reviews, monitored online discussion
- Many reviewers voluntarily discussed online (in addition to required 38)

Post-Phase 1 Discussion Outcome

- Papers with at least one accept or undecided moved to phase 2
- Some “all rejects” with low review quality also moved to phase 2
- 30% papers not moved to phase 2
- Cost vs. Benefit
  - Each PC member revisited 2 reviewed papers on average (38 yellows)
    - 0.5 for ERC

  + Saved 2 new reviews per PC member, 1 per ERC member

Reduce burden on PC

Informed decisions,
Adequate author feedback

Phase 2

- Each phase 2 paper assigned at least 5 total reviews, at least 3 from PC
- Mid-phase 2: tool by Andrew Myers to estimate reviewer bias
  - Negative bias ⇒ gives scores lower than other reviewers of same paper
  - Positive bias ⇒ gives scores higher than other reviewers of same paper
  - Sent scores to individuals for reflection
- End of phase 2: Crowd sourced review quality assurance
  - Insufficient time for me to read all reviews before author response
  - Last reviewer of paper did "review sufficiency check" (RSC) for all reviews
    - Colored paper purple, sent comment if needed
  - I prioritized papers that did not pass RSCs: nagged reviewers, got more reviews, initiated discussion, …

Phase 2 Outcome

- Between phase 2 deadline and start of author response
  - All phase 2 reviews received
  - All RSCs done
  - New reviews for 18 papers solicited
  - Many new reviews already arrived (in 3 days!)
- Cost vs. Benefit
  - PC+ERC members did 1.5 RSCs on average

  \+ Authors responded to better quality reviews (including new reviews)

Online Discussion

- Two weeks of intensive online discussion
- Goal: consensus on
  - Preliminary accept
  - Preliminary reject
  - Discuss (with major areas of disagreement clarified)
- I read all online comments, nagged, commented, clarified, got even more reviews, pushed for consesus, nagged, …
- After consensus, leads turned paper into green, red, yellow – helped me prioritize

Online Discussion is Key to Smooth PC Meeting

- Non-PC reviewers' opinions adequately represented during PC meeting
  - Accepted some papers where only champions were ERC reviewers
- Better reflection on other reviewers' opinions
  - E.g., read previous work, confirming opinion from another expert
- PC meeting time not wasted on policy, philosophy that I could clarify
  - E.g., is this within scope of ASPLOS?
- PC members came better prepared to the meeting
- More effective PC meeting with more engagement from all members
  - Clear issues to discuss

This phase identified 23 green and 65 yellow papers for PC meeting

PC Meeting in Chicago on Weekday 8a to 615p

- Philosophy: Seek consensus, avoid narrow majority votes

  Priority on decision to those who read the paper

- Most time on yellow papers
  - No consensus in ~5 min?
    - Advisory PC vote (without reviewers)
    - If still no reviewer consensus, table & discuss in small group during breaks
- Tabled papers session – 9 papers
  - If reviewers reached consensus
    - If same as previous PC vote, no more discussion
    - Else reviewers explained their decision, handled questions
  - If no consensus among reviewers, used their majority vote
  - If tie among reviewers, used PC's previous vote

Reflections

Reviewing process has come a long way BUT… still scope for improvement

- My review checks and RSCs resulted in many review updates
- Online discussions clarified many misunderstandings, changed opinions
- Consensus-driven approach helped involve all reviewers
- PC meeting time for hardest cases: exploit small & large group feedback

Critical for informed decisions and appropriate author feedback

THANKS!

Program Committee

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Robert Geva
Ashvin Goel
Steven Gribble
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Gernot Heiser
Tony Hosking
Wilson Hsieh
Chris Hughes
Hillery Hunter
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Mahmut Kandemir
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E. Christopher Lewis
Kai Li
Geoff Lowney
Evangelos Markatos
Milo Martin
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Maged M. Michael
Todd Millstein
Tipp Moseley
Onur Mutlu
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Josep Torrellas
Eric Tune
Amit Vasudevan
Kaushik Veeraraghavan
TN Vijaykumar
Adam Welc
Xiaolan Zhang

My Conflicts Management

Sandhya Dwarkadas handled my conflicts

Eddie Kohler added per paper manager support to handle PC chair conflicts

My Two Right Hands

Hyojin Sung

Rakesh Komuravelli

Submission chairs

Past Program Chairs

- Vikram Adve (ASPLOS'10)
- Ras Bodik (ASPLOS'13)
- Christos Kozyrakis (MICRO'13)
- Margaret Martonosi (ISCA'13)
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The Wizards

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