PLDI 2017 PC Chair Report

Martin Vechev
ETH Zurich and DeepCode
322 submissions

18 withdrawn at some point

47 accepted

8 PC papers accepted out of 42 PC subs

1250 reviews submitted

27 by external reviewers
Reviewing

2-tier process with internal deadline for round 1

Shepherding for each accepted paper
PLDI 2017: main changes

Manual assignment of reviews ~ 5 days

Fewer papers per PC reviewer ~ 20*

Longer reviewing period ~ 63 days
4 Distinguished Paper Awards

3 Distinguished Reviewer Awards

1 Distinguished Artifact Award
Breakdown by topic

- Submitted
- Accepted
Breakdown by topic

- **Submitted**
- **Accepted**

### Breakdown by topic:

- **≥ 20 subs per topic**
- **10 to 19 subs per topic**
- **0 to 9 subs per topic**

### Topics:
- Verification
- Compiler optimization
- PL design/implementation
- Static analysis
- Correctness
- Concurrency
- Synthesis
- Code generation
- DSLs
- Parallelism
- Dynamic analysis
- Functional programming
- Bug detection
- Novel program models
- Type systems
- Theorem provers
- Runtime systems
- New PL
- Software engineering
- Specification
- Semantics
- Performance analysis
- Distributed systems
- Machine learning
- Program logics
- Security
- Debugging
- Runtime monitoring
- Testing
- Auto parallelization
- Declarative language
- Big data
- Cloud computing
- Emerging topics
- GPUs
- Memory models
- Weak memory models
- Web applications
- Approximate computing
- Embedded systems
- Error correction/detection
- Scripting languages
- Vectorization
- Mobile
- Scientific computing
- Statistical methods
- Stream processing
- Hardware
- Automata theory
- Deep learning
- HCI
- Logic programming
- Real time systems
- Web/browser technology
- Databases
- Energy
- Probabilistic programming
- Sensor networks
- Availability
- Crowdsourcing
- Education
- FPGAs
- Graphics
- Microarchitecture
- Non-volatile memory
- Reconfigurable computing
- Determinism
- Power
- Malware
≥ 20 subs per topic
10 to 19 subs per topic
Number of **author appearances** in submitted papers

- **562** appearances – from U.S. academia
- **483** appearances – from academia of **28** countries
- **211** appearances – from **33** industrial organizations

*Industry[24] means 24 industrial organizations*
Observation I

PLDI is a great match for many of the latest developments in CS which have an applied PL flavor: system programmability, explainable AI, probabilistic programming, secure computing, computational HCI, compilers for big data systems, etc.

To ensure relevance and expertise, we need to involve researchers from other areas while keeping a strong technical PL core.
Committees
Program Committee:

35 PC members

11 Assistant Professors

Each reviewed ~20 papers

New: Experts in Machine Learning, Architecture, Software Engineering
External Program Committee:

22 members

0 Assistant Professors

Each reviewed ~ 10 papers

Experts in the area

EPC meeting decided PC papers
External Review Committee:

47 members

10 senior PhD students

Experts in cryptography, networking, security, ML

Each reviewed ~ 6-10 papers
Many rejected PLDI papers need \( \sim 2-3 \) months of work to be accepted at PLDI. The authors want their papers to appear at PLDI.
Proposal

PLDI with $\geq 2$ deadlines per year

$\Rightarrow$ will lead to $\sim 30$ more accepted papers per year

$\Rightarrow$ will help with continuity of reviewing

$\Rightarrow$ may help attract relevant research from outside PL