



Welcome to FPGA 2015!



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FPGA 2015



- ▶ Another record year for FPGA attendance:
 - 195 registered (as of last night)
 - Up 7% on 2014, up 15% on 2013
 - Greatest sponsorship to date
- ▶ Thanks in particular to:
 - Vaughn Betz, Deming Chen, Mingjie Lin
 - All members of OC, TPC & Best Paper Committee
 - John and Joanne Lateulere
- ▶ Program...

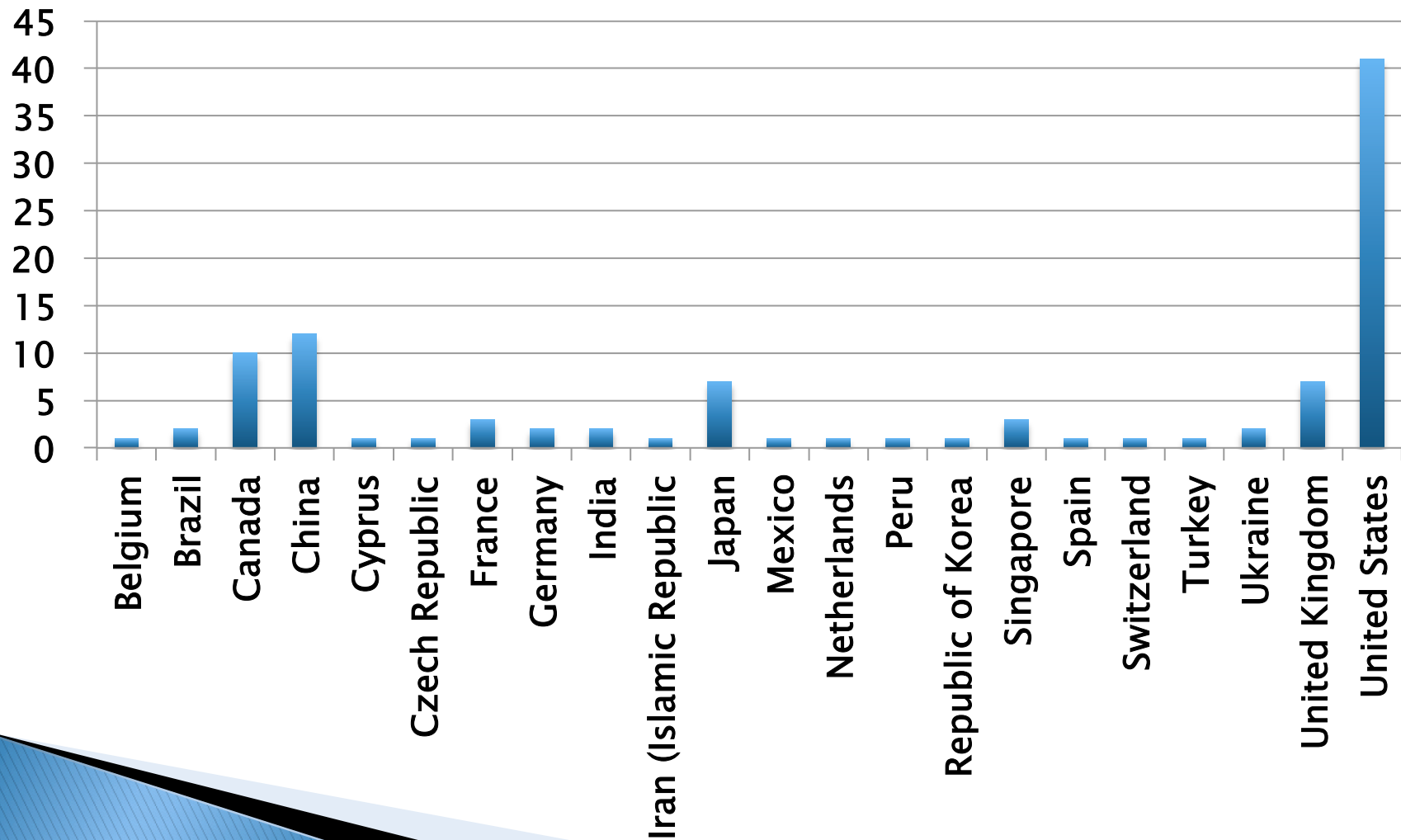


Some Numbers

- ▶ 94 submissions to regular research track
 - 36 Applications
 - 18 High-Level Abstractions and Tools for FPGAs
 - 14 FPGA-Based and FPGA-like Computing Engines
 - 9 Architecture
 - 8 CAD
 - 6 Circuit Design
 - 3 Other
- 25 short; 69 long
- ▶ 8 submissions to designers' track
- ▶ 14 submissions from industry or research institutes



From 22 countries



TPC

- ▶ Consists of 46 experts from both academia and industry
- ▶ Each paper received 5 expert reviews on average
- ▶ Held a full-day TPC meeting at Altera for paper selection and program discussion
- ▶ A rigorous shepherding process for a small subset of accepted papers for best quality

Paper Acceptance Statistics

- ▶ The TPC accepted 20 full and 7 short research papers
 - Acceptance rate is 26%.
- ▶ 8 design/tutorial papers
 - A new full-day Designer's Day event
 - A keynote speech
- ▶ Four poster sessions
 - A total of 46 additional research projects
 - Short papers will present posters as well

The Program

- ▶ Session 1: Computer-aided Design
- ▶ Poster Session (1)
- ▶ Session 2: Configuration and Processing
- ▶ Session 3: Architecture 1
- ▶ Poster Session (2)
- ▶ Session 4: Architecture 2: Memory Systems
- ▶ Banquet and Evening Panel
- ▶ Session 5: Processors and Accelerators
- ▶ Poster Session (3)
- ▶ Session 6: High-level and System-level Synthesis
- ▶ Session 7: Circuit Design
- ▶ Poster Session (4)
- ▶ Session 8: Applications

Three Best Paper Candidates

- ▶ **Application of Specific Delay Window Routing for Timing Optimization in FPGA Designs**
▶ Evan Wegley, Qin Hai Zhang (Lattice Semiconductor Corp.)
- ▶ **Take the Highway: Design for Embedded NoCs on FPGAs**
▶ Mohamed S. Abdelfattah, Andrew Bitar, Vaughn Betz (University of Toronto)
- ▶ **Optimizing FPGA-based Accelerator Design for Deep Convolutional Neural Networks: An Analytical Approach based on Roofline Model**
▶ Chen Zhang (Peking University), Peng Li (University of California, Los Angeles), Guangyu Sun (Peking University & University of California, Los Angeles), Yijin Guan (Peking University), Bingjun Xiao (University of California, Los Angeles), Jason Cong (University of California, Los Angeles & Peking University)

Some Logistics

- ▶ Authors received emails beforehand for
 - Bio of the presenter
 - Slides for feedback from session chairs
- ▶ Long talks: each has a total of 25 minutes
 - 20 minutes for the presentation
 - 5 minutes for Q & A
- ▶ Short talks: each has a total of 5 minutes
 - No Q & A
 - A poster in the earliest poster session after the talk
- ▶ Please load the latest slides to the conference laptop 15 minutes before the session starts



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