Faculty of Computer, Communication, and Information Science

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## HEATHER MILLER

Citizenship

USA

Research Interests

Programming language design and implementation for distributed programming. I'm interested in using type systems to facilitate the design of new, functional distributed systems.

Education

EPFL, Lausanne, Switzerland

Ph.D. in Computer Science Advisor: Martin Odersky

2011 -

2009 -

University of Miami, Coral Gables, FL

2006 - 2009

BSEE in Electrical Engineering, Audio Engineering, with honors, May 2009

Cooper Union for the Advancement of Science and Art, New York, NY 2004 - 2006

Service

Committees: Scala 2014 (co-chair), Scala 2013 (co-chair)

Reviewer for: ECOOP 2013

**Publications** 

Functional Programming For All! Scaling a MOOC for Students And Professionals Alike

ICSE 2014

Heather Miller, Philipp Haller, Lukas Rytz, Martin Odersky ACM SIGSOFT International Conference on Software Engineering

RAY: Integrating Rx and Async for Direct-Style Reactive Streams

REM 2013

Philipp Haller, Heather Miller

Workshop on Reactivity, Events and Modularity

Instant Pickles: Generating Object-Oriented Pickler Combinators for Fast and Extensible Serialization

OOPSLA 2013

Heather Miller, Philipp Haller, Eugene Burmako, Martin Odersky ACM SIGPLAN Conference on Object Oriented Programming, Systems,

Languages and Applications

FlowPools: A Lock-Free Deterministic Concurrent **Dataflow Abstraction** 

LCPC 2012

Aleksandar Prokopec, Heather Miller, Tobias Schlatter, Philipp Haller, Martin Odersky

International Workshop on Languages and Compilers for Parallel Computing

	Tools and Frameworks for Big Learning in Scala: Leveraging the Language for High Productivity and Performance Heather Miller, Philipp Haller, Martin Odersky NIPS Workshop on Parallel and Large-Scale Machine Learning	BigLearn 2011
	Parallelizing Machine Learning – Functionally: A Framework and Abstractions for Parallel Graph Processing Philipp Haller, Heather Miller Scala Workshop	Scala 2011
Awards	US National Science Foundation Graduate Research Fellowship (2009)	2011 - 2014
	EPFL Outstanding Teaching Award EPFL Computer Science Fellowship	2012
	Most Outstanding Audio Engineering Student, University of Miami	2009 - 2010
	Most Outstanding Eta Kappa Nu Student, University of Miami	2009 2009
	Information Technology Scholarship, University of Miami	2006-2009
	John Farina Family Scholarship, University of Miami	2006-2009
	Eta Kappa Nu	2008
	Tau Beta Pi	2008
	SMART US Department of Defense Scholarship Alternate	2007
	Cooper Union Full Tuition Scholarship	2004 - 2006
Teaching Experience	<b>Lead Teaching Assistant</b> , Functional Programming Principles in Scala Popular Coursera MOOC on functional programming in Scala Lead the development of all aspects of the course	2012 - 2014
	Instructor, Scala as a Research Tool ECOOP Tutorial	2013
	Lead Teaching Assistant, Programming Principles Undergraduate course on functional and logic programming	2012
	Teaching Assistant, <i>Programming Principles</i> Undergraduate course on functional and logic programming	2011