KC Sivaramakrishnan

http://kcsrk.info

Computer Laboratory
University of Cambridge
15 JJ Thomson Av, Cambridge, UK CB3 0FD

Education

- **PhD, Computer Science**, Purdue University, USA, Dec 2014
  Thesis title: *"Functional Programming Abstractions for Weakly Consistent Systems"*
- **MS, Computer Science**, Purdue University, USA, May 2011
- **BE, Computer Science and Engineering**, Anna University, India, May 2008

Employment

- **Senior Research Associate,** Computer Laboratory, University of Cambridge, Dec 2014 – Present
- **Research Fellow,** Royal Commission for the Exhibition of 1851, Oct 2015 – Present
- **Research Fellow,** Darwin College, Cambridge, Oct 2015 – Present
- **Research Assistant,** Purdue University, Aug 2008 – Dec 2014
- **Research Intern,** Microsoft Research, Cambridge, Feb 2012 – May 2012
- **Research Intern,** Samsung Research America, May 2010 – Aug 2010

Awards and Recognitions

- **Research Fellowship**, Royal Commission for the Exhibition of 1851, 2015–2018, £108,000.
- **Research Fellowship**, Darwin College, Cambridge, 2015–2018, £900.
- **Maurice H. Halstead Memorial Award** for outstanding research in Software Engineering, Purdue University, 2014, $4,000.
- **Best paper award** at Many-core Architecture Research Symposium, 2012, $1,000.
- Glasgow Haskell Compiler (GHC) Committer.
- **SIGPLAN PAC travel grant** for PLDI 2012 and POPL 2014, $1,500 each.
- **NSF travel grant** for ICFP 2013, $2,000.

Service

- **Organizer,** NII Shonan Meeting on "Programming Language support for Data-intensive Applications", Jan 2019.
- **Organizer**, Dagstuhl Seminar on *"Algebraic Effect Handlers go Mainstream"*, Apr 2018.
- **Convener**, Darwin College Science Seminar, Oct 2015 – Oct 2017.
- **Program Committee member:** PMLDC@ECOOP 2017, Off-the-beaten track (OBT) 2017, OCaml Workshop 2016, SPLASH-MARC symposium, 2013
- **Artifact Evaluation Committee member**: ICFP 2018, PLDI 2015, PPoPP/CGO 2016.
- **Reviewer**: ECOOP, TODS, JFP, POPL, ICFP, ASPLOS, TLDI, Concurrency and Computation: Practice and Experience, Software: Practice and Experience.

Software

- **Multicore OCaml:** Native support for concurrency and parallelism in OCaml
- **Quelea:** Declarative programming over eventually consistent data stores
- **MultiMLton:** MLton Standard ML compiler for exotic manycore architectures

Journal Publications

1. Stephen Dolan, Spiros Eliopolous, Daniel Hillerström, Anil Madhavapeddy, **KC Sivaramakrishnan**, Leo White, *"Concurrent System Programming with Effect Handlers"*, Lecture Notes in Computer Science (LNCS), 2017 (accepted)
2. Oleg Kiselyov, **KC Sivaramakrishnan**, *"Eff directly in OCaml"*, Electronic Proceedings in Theoretical Computer Science (EPTCS), 2017 (*accepted*)
3. **KC Sivaramakrishnan**, Tim Harris, Simon Marlow, Simon Peyton Jones , *"Composable Scheduler Activations for Haskell"*, Journal of Functional Programming (JFP), Jun 2016
4. **KC Sivaramakrishnan**, Gowtham Kaki, Suresh Jagannathan, *"Representation without Taxation: A Uniform, Low-Overhead, and High-Level Interface to Eventually Consistent Key-Value Stores"*, IEEE Data Engineering Bulletin, 39(1): 52 64, Mar 2016
5. **KC Sivaramakrishnan**, Lukasz Ziarek, Suresh Jagannathan, *"MultiMLton: A Multicore-aware Runtime for Standard ML"*, Journal of Functional Programming (JFP), Nov 2014
6. **KC Sivaramakrishnan**, Mohammad Qudeisat, Lukasz Ziarek, Karthik Nagaraj, Patrick Eugster, *"Efficient Sessions",* Science of Computer Programming (SCP), 78(2): 147 – 167, Feb 2013

Conference Publications

1. Daniel Hillerström, Sam Lindley, Robert Atkey, **KC Sivaramakrishnan**, *"Continuation Passing Style for Effect Handlers"*, International Conference on Formal Structures for Computation and Deduction (FSCD), 2017
2. Gowtham Kaki, **KC Sivaramakrishnan**, Thomas Gazagnaire, Anil Madhavapeddy, Suresh Jagannathan, *"DaLi: Database as a Library",* The 2nd Annual Summit on Advances in Programming Languages (SNAPL), 2017 (Oral Presentation)
3. **KC Sivaramakrishnan**, Gowtham Kaki, Suresh Jagannathan, *"Declarative Programming over Eventually Consistent Data Stores",* International Conference on Programming Language Design and Implementation (PLDI), 2015
4. **KC Sivaramakrishnan**, Lukasz Ziarek, Suresh Jagannathan, *"Rx-CML: A Prescription for Safely Relaxing Synchrony",* Symposium on Practical Aspects of Declarative Languages (PADL), 2014
5. **KC Sivaramakrishnan**, Lukasz Ziarek, Suresh Jagannathan, *"A Coherent and Managed Runtime for ML on the SCC"*, Many-core Architecture Research Community Symposium (MARC), 2012
6. **KC Sivaramakrishnan**, Lukasz Ziarek, Suresh Jagannathan, *"Eliminating Read Barriers through Procrastination and Cleanliness"*, International Symposium on Memory Management (ISMM), 2012
7. Lukasz Ziarek, **KC Sivaramakrishnan**, Suresh Jagannathan, "Composable Asynchronous Events", International Conference on Programming Language Design and Implementation (PLDI), 2011
8. **KC Sivaramakrishnan**, Karthik Nagaraj, Lukasz Ziarek, Patrick Eugster, "Efficient Session Type Guided Distributed Interaction", International Conference on Coordination Models and Languages (COORDINATION), 2010
9. Lukasz Ziarek, **KC Sivaramakrishnan**, Suresh Jagannathan, *"Partial Memoization of Concurrency and Communication"*, International Conference on Functional Programming (ICFP), 2009