informatik-Kolloquium

Der Fachbereich Informatik der Johannes Kepler Universität Linz[1] lädt in Zusammenarbeit mit der Österreichischen Gesellschaft für Informatik (ÖGI) zu folgendem Vortrag ein:

Topic: **Classic Problems to Make Quantum Computing a Reality**

Presenter: **Adam C Whiteside**
Affiliation: Google Inc.

Datum: **Montag, 4. Juli 2016, 10:00 Uhr**

Location: **Universität Linz, Informatikgebäude (Science Park 3), S3 058**

Abstract: Recent experiments have shown exciting process towards creating reliable quantum bits (qubits) that will make up tomorrow's quantum computers. While experiments and engineers continue to make the physics side a reality, computer scientists and software engineers will be essential to getting the most out of such expensive hardware. An entire stack of classical software must be developed, requiring creative solutions to a broad range of problems. We provide an introduction to quantum computing and an overview of the problems left to face in an effort to inspire more research in these important areas.

Short Bio: Adam Whiteside started his studies in Computer Science at the University of Melbourne, while working as a web developer, before going on to do his Master's in Bioinformatics researching the effectiveness of various models on the detection of differential isoform gene expression. Along the way, he encountered quantum computing and worked closely with Dr. Austin Fowler to create a highly optimized version of the minimum-weight perfect matching algorithm for use in quantum error correction. Having discovered the wealth of interesting problems to solve in the field, he began his Ph.D. studies in Physics to continue his work on analyzing the coordination of physical qubits to perform logical operations. After contracting for Google Inc., he currently finds himself working with the Quantum AI team in Los Angeles office. Given his bioinformatics background, he is most excited about the applications of quantum computing in the field of chemistry, and he hopes that more computer scientists and software engineers will discover the fascinating problems left to be solved to make these computers a reality.

Einladender: Univ.-Prof. Dr. Robert Wille
Institut für Integrierte Schaltungen
Abteilung Integrierter Schaltungs- und Systementwurf

---

[1] Der Fachbereich (http://informatik.jku.at) besteht aus folgenden Instituten:
Application Oriented Knowledge Processing (FAW), Bioinformatics, Computational Perception, Computer Architecture, Applied Systems Research and Statistics, Computer Graphics, Formal Models and Verification, Networks and Security, Integrated Circuits, Pervasive Computing, Software Systems Engineering, System Software, Telecooperation, Signal Processing