

Seminar: Friday 6 September 2013: Monash Undergraduate Research Projects Abroad (MURPA) and Queensland Undergraduate Research Projects Abroad (QURPA).

The annual MURPA/QURPA program exposes final year undergraduate students to an international research experience within a leading research laboratory.

On Friday 6 September Dr Jack Dongarra will present his seminar "Emerging Heterogeneous Technologies for High Performance Computing" live to audiences in Melbourne and Brisbane.

Melbourne Date: Friday 6 September Time: 9.00 - 10.00am Location - Monash University: Seminar Room G12A, Building 26, Clayton Campus Enquiries: Caitlin Slattery (Faculty of IT)

Brisbane Date: Friday 6 September Time: 9.00 - 10.00am Location - University of Queensland: Seminar Room 505A, Building 47 (Axon), St Lucia Campus Enquiries: Sharon Cook (Research Computing Centre)

Abstract: Emerging Heterogeneous Technologies for High Performance Computing

Dr Jack Dongarra, University of Tennessee, Oak Ridge National Laboratory, University of Manchester

This talk will highlight the emerging technologies in high performance computing. We will look at the development of accelerators and some of the accomplishments in the Matrix Algebra on GPU and Multicore Architectures (MAGMA) project. We use a hybridization methodology that is built on representing linear algebra algorithms as collections of tasks and data dependencies, as well as properly scheduling the tasks' execution over the available multicore and GPU hardware components.