Topics in Distributed Quantum Computing

CS 692DQ-UMass, U. Arizona

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First meeting: Monday Feb. 3, 9AM LGRC A104A
Subsequent meetings: Tuesdays 1pm - 3pm beginning Feb. 4, LGRC A311

This seminar focuses on distributed quantum computing (DQC). Topics include but are not limited to circuit knitting; architectures and platforms suitable for DQC; fault tolerance, magic state distillation, and quantum error correcting codes for DQC; applications that can be supported with DQC; the effects of topology and limited interconnectivity; the role of entanglement in DQC; cloud-based quantum computation with remote clients; resource management and scheduling. All students taking the seminar for credit will be expected to present papers on these topics and to participate in classroom discussion. Students taking the seminar for 3 credits will be expected to propose and complete a project. The main objective of this seminar is to bring everyone, including instructors, up to speed regarding the state of the art in distributed quantum computation. 1-3 credits.

Course schedule along with sign up slots can be found here