UQ Summer or Winter Research Project Description

Project title:	Knots and their grid diagrams
Hours of engagement & delivery mode	20pw On site, but other arrangements possible
Description:	The aim of the project is to look at several properties of random grid diagrams, a combinatorial model for knots. Depending on student interest, specific problems might include a computational search for minimal pathways between different knots, or the analysis of monotone diagram simplification.
Expected learning outcomes and deliverables:	Expected outcomes include a deep understanding of the concepts of knots and moves between them. Depending on the student's interest, outcomes might include software implementation and/or relations to biology.
Suitable for:	(MATH2400 or MATH2401) + (MATH1052 or MATH1072) recommended
Primary Supervisor:	Dr Daniele Celoria
Further info:	I can be contacted before submitting the application. My email is d.celoria@uq.edu.au Office: 67-555