Dagstuhl Seminar
Comparative Theory for Graph Polynomials

	Mon	Tue	Wed	Thur	Fri
AM	welcome, Farr, Ellis-Monaghan, problem overviews	short talks, breakout sessions	reports, special interest talks, working groups	breakout sessions	reports/new directions
12:15	lunch	lunch	lunch	lunch	lunch
PM	problem overviews ctd, form working groups	breakout sessions	optional excursions	breakout sessions	final efforts/ departures
18:00	dinner	dinner	dinner	dinner	

	Monday
09:15	Welcome & Practical information
09:30	Graham Farr: Building on Tutte's legacy
10:30	Jo Ellis-Monaghan: Overview
11:15	Problem overviews (5-minute 'teasers')
12:15	Lunch
14:00	Problem overviews ctd
15:00	Working group formation
15:30	Breather ('coffee and cake' is served between 15:00 and 16:00)
16:00	Working groups start work!
18:00	Dinner

	Tuesday
09:00	Short talks: Jaeseong Oh, Animesh Chaturvedi, Martin Kochol, Krystal Guo
10:15	Break
10:45	Working groups resume
12:15	Lunch
14:00	Working groups continue
15:30	Breather ('coffee and cake' is served between 15:00 and 16:00)
16:00	Working groups continue ctd
18:00	Dinner

	Wednesday
08:55	Announcements
09:00	Working group updates (up to 15 mins each)
10:30	Break (**collection of 40 euros from those going on the trip**)
11:00	Special interest talk: Bodo Lass, 'Matching polynomials'
11:20	Special interest talk: Johann Makowsky, 'Open questions in complexity'
11:40	Return to working groups
12:15	Lunch
13:30	Excursion (meet outside entrance - on time, please!)
18:00	Dinner

	Thursday
09:00	Working groups (located in various rooms as for previous days)
10:30	Coffee opportunity
11:00	Return to working groups
12:15	Lunch
13:30	Working groups regroup
15:30	Breather
16:00	Working groups final preprandial efforts
18:00	Dinner (incl. "Quo vadis? etc." questions and responses)

	Friday
09:00	Check out of room, settle payment at reception
09:30	Working groups (located in various rooms as for previous days) meet to review progress and formulate future directions
10:30	Coffee
11:00	Working group updates and plans (Lecture Room 1)
12:15	Lunch
PM	Departures, Stragglers struggle bravely on
18:00	Dinner

Working groups

- **Unification** General frameworks for graph polynomials (meta-problems, K-theory, SOL, Hopf algebras,...)
- **Generalizations** Polynomial invariants for graphs with added structure (e.g. digraphs, ribbon graphs) or more general "underlying" combinatorial structures (matroids, $\triangle$-matroids,...)
- **Complexity** Computational complexity and computational methods
- **Distinction** Distinguishing power of graph invariants (equivalence and uniqueness up to isomorphism with respect to a given graph polynomial, interrelations among graph polynomials, properties of graph polynomials)
- **Applications** Applications of graph polynomials in other disciplines (self-assembly, sequencing, quantum walks, statistical mechanics, knot theory, quantum Ising)
- **Conjectures** Breakthrough conjectures (outstanding open problems whose resolution would have broad impact on the understanding of graph polynomials)