Brainstorming

July 1, 2014

1. Special n-graphs
2. annular graphs
3. infinite signed networks
4. infinite trees
5. heat equation on graphs
6. wave equation on graphs
7. probability questions on graphs (expectation)
8. compute genus of graphs
9. random walks on graphs (matt j) 1. Simulations (animated, GUI, efficient) 2. Define variants (2d, nd, modify walk/seed rules, paul bunyan) 3. Prove things (escape to infinity, visits to 0, limited speed)
10. eigenvalues of Lambda and K
11. partial recovery
12. parametrization of response matrices
13. characterization of response matrices
14. finger print database for proofs
15. peak set permutations (matt)
16. other permutation statistics (matt)
17. asymptotics of n to 1 graphs (reid)
18. M(n,d) problem: 1. other families of permutation groups (computer Hamming distances) 2. small constructions (M(6,5) and M(10,9) - no known structure) 3. computational (algorithms for coming up with permutations)