Hauptseminar Diskrete Optimierung (S2C1)
Wintersemester 2011/2012
Graphentheorie

Vortragsthemen:

1. Group-valued flows and $k$-flows for small $k$ ([1] 6.3, 6.4)
2. Flow-colouring duality ([1] 6.5)
3. Tutte’s flow conjectures ([1] 6.6)
4. Szemerédi’s regularity lemma ([1] 7.4)
5. Applying the regularity lemma ([1] 7.5)
6. Random Graphs ([1] 11.3, 11.4)
7. Hamilton cycles: necessary and sufficient conditions ([1] 10.1, 10.2)
8. Hamilton cycles in the square of a graph ([1] 10.3)
9. Computing roots of graphs is hard
10. The chromatic number of graph powers
11. On the hardness of 4-coloring a 3-colorable graph
12. Enumerating maximal independent sets with applications to graph coloring
13. An $O^*(2^n)$ algorithm for graph coloring
14. Approximate graph coloring by semidefinite programming
15. Packing arborescences ([2] 10.1)
16. Packing branchings ([2] 10.2)

Literatur:
