

DM201: Graph algorithms with applications — Weekly note 8

Stuf covered in week 11 :

- BG section 3.11
- BG Exercises 3.59, 3.60 (the complexity should be $O(r^3)$), 3.79
- BG Exercises 7.29
- BG 5.2 + 5.3
- BG 9.5

April 8: Classes are cancelled, spend the time on your project.

April 10:

- Structure of quasi-transitive digraphs. BG 4.8
- The path merging property. BG 4.9
- Hamiltonian Cycles in path-mergeable digraphs BG 5.4
- Hamiltonian cycles in quasi-transitive digraphs BG 5.9.

Current plan for the rest of the course (order may change):

12.3-11.4: Project 1

8.4: No classes finish project 1

10.4: Hamiltonian paths and cycles in pmcs and qtds BG 4.8-4.9, 5.9

15.4: matchings BG 3.11 and J Chapter 13

17.4: matchings

22.4: weighted matching J Chapter 14

24.4: exercises

24.4-23.5: Project 2

29.4,1.5: No classes work on project 2

6.5: Orientations: submodular flows + Nash Williams theorem BG 8.6-8.8.

8.5: colour coding and minimum cost branchings BG 10.2 and handout pages

13.5: Colourings and homomorphisms J CH 9 and BG 12.5

13.5: exercises

15.5: TSP J Chap 15

20.5: exercises

22.5: Network synthesis J ch 12

29.5: Return of projects