

5th Hands-on sheet for Advanced Algorithmics, SS 13

Hand In: Exercise sessions, hand-in box in stairwell 48-6 or email.

Step 4.5: Find better algorithms – approximation

Try to apply the new concepts from lecture to our scenarios.

- Research approximation algorithms for the problems we model our scenarios with that run polynomial time.
- Implement the most promising candidates and run them against your testbed. What do you observe in terms of performance?
- Run the algorithms on our real-world data. How do they perform? Can you explain differences in performance?

Step 5: Making a choice

We have tried several strategies. Now we have to choose: which algorithm is preferable in which scenario resp. under which assumptions?

Also try to answer the following questions.

- How good are the (best) solutions on the real-world data?
- Which algorithm promises the best solutions? Can you reason why?
- Which algorithm would you recommend to a practitioner? Why?

Working on the hands-on problems may complement your usual exam-preparation routine nicely. Feel free to contact us with any questions or solutions!

The course repository – <https://github.com/reitzig/advalg13> – is still available.