

## 4th Hands-on sheet for Advanced Algorithmics, SS 15

**Hand In:** in lecture, exercise sessions, hand-in box in stairwell 48-6 or via email.

### Step 4.3: Find better algorithms – pseudopolynomial time

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

- Research algorithms for the problems we model our scenarios with that run in pseudopolynomial time. Which quantities influence their runtime?
- 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?

Still stuck in step two due to time restrictions? No worries, you do not *have* to work on the real data. It is completely fine if you work only on synthetic data!

Note also that you do not have to work on the steps in sequence; feel free to join in at any time!

Our repository – <https://github.com/reitzig/advalg15> – awaits your contributions!