Sparsity course: winter semester 2017/18

Evaluation criteria

Two components of student's performance will determine their final grade: homeworks and oral exam at the semester's end. In principle, they should have a similar weight, but they will be counted differently.

Homeworks. We plan to have around 6 batches of homework exercises, each consisting of 3 exercises. In each batch, there should be an easy exercise, a medium exercise, and a challenging exercise. Each batch will have a 3-4 week period between publishing and deadline, so there will be some overlaps between the batches. The solutions may be either (preferred) typed in tex and sent by e-mail to both the lecturers, or (not preferred) given on paper to any of the lecturers. Allowed languages of solutions are English (preferred), Polish, and German.

Solutions for each exercise will be graded in the so-called olympic scale:
- Full solution: 6 points
- Full solution with minor issues: 5 points
- At least half of a solution: 2 points
- Anything less: 0 points

Note that anything less than half a solution is rounded down to 0 points. There might be some variations, like additional items for bonus points. As usual, solutions should be described in a clear mathematical style and serious presentation issues may lead to reducing the score. There is a code of honor of not searching the solutions in research papers. Looking at Wikipedia, provided lecture notes, and the *Sparsity* book is allowed.

Based on the total score from homeworks, a grade modifier from $\{-1.0, -0.5, 0.0, +0.5, +1.0, +1.5\}$ will be given. This modifier will be added to the grade from the oral exam. The cutoffs for modifiers will be exactly decided during the semester, but roughly it should be like this:
- To get modifier -0.5 one should solve most of the easy exercises.
- Solving all the easy exercises and some of the medium ones should be sufficient to obtain modifier 0.0.
- To get modifier $+1.5$ one should always solve the easy and the medium exercise, and some of the hard ones as well.

Oral exam. The exam will be based on a random pick of several questions from various topics that were discussed during the semester. The exact form will be determined later, but in principle there will be a question from each major topic and the examination should take around 45 minutes per person. The grade from the oral exam will be from the set $\{-\infty, 3.0, 3.5, 4.0, 4.5, 5.0, 5.5\}$. After adding the modifier from homeworks, the grade will be rounded as follows:
- Everything below 3.0 maps to 2 (not pass).
- Everything above 5.5 maps to 5!.
- 5.5 maps to 5.
- All the other grades stay unchanged.