CSE Seminar - Fluid-Structure Interaction

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1 Workload and Grading

The following tasks have to be accomplished for a successful participation in the seminar:

- write a paper,

- write reviews about two papers of other students,

- write and give a talk.

The final grade of a participant is determined from that three tasks with the weighting 2 (paper) : 1 (two reviews) : 2 (talk). The seminar is worth 4 ECTS.

2 Topics and Supervisors

The seminar comprises ten topics, each given by one student. Each topic has one associated supervisor, who acts as the contact person for a student having chosen that topic. The topics and association to supervisors is as follows:

# topic	supervisor
1 Fluidmechanics basics	P. Neumann
2 Discretisation techniques for fluid equations	T. Neckel
3 Structural mechanics basics and discretisation with FEM	M. Mehl
4 Coupling of fluids and structures	B. Gatzhammer
5 Coupling algorithms for the solution of partitioned FSI	M. Mehl
6 Coupling data mapping for non-matching grids	B. Gatzhammer
7 Spacetrees for efficient data mapping and geometry queries	B. Gatzhammer
8 Peano as fluid simulation tool	T. Neckel
9 Comsol as structure simulation tool	J. Benk
10 preCICE as coupling environment for partitioned FSI	B. Gatzhammer

In order to get the material to accomplish your tasks, contact your supervisors by email and arrange a meeting with them.

- Philipp Neumann, neumanph@in.tum.de

- Miriam Mehl, mehl@in.tum.de

- Tobias Neckel, neckel@in.tum.de

- Bernhard Gatzhammer, gatzhamm@in.tum.de

- Janos Benk, benk@in.tum.de

3 Important Dates

date	time	event	comments
24.10.2011	15:00 - 16:00	kick-off meeting	-
-	-	write paper	-
27.11.2011	24:00	deadline for paper	pdf, 7–10 pages, font size 12, line spacing 1, A4, anonymous (no author name)
28.11.2011	-	Distribution of papers for reviews	-
-	-	write reviews	-
09.12.2011	24:00	deadline reviews	pdf, 3-4 pages, anonymous (no author name)
12.12.2011	t.b.a.	individual discussion of papers	reception of reviews
-	-	prepare talk	25-30 min ($\sim$10-15 slides, test it!)
12.01.2012	24:00	deadline final paper	print version, with author name
17.01.2012	14:00 - 18:00	talk 1-3	mandatory attendance!
18.01.2012	14:00 - 18:00	talk 4-6	mandatory attendance!
20.01.2012	14:00 - 18:00	talk 7-9	mandatory attendance!
t.b.a.	-	notification of results	-

4 Paper

For the structure of your paper, follow the advices given in the following guides:

- R.A.Day, How to present a paper in theoretical computer science: a speaker's guide for students, `http://portal.acm.org/citation.cfm?id=346048.346055`

- W. Strunk and E. B. White, The Elements of Style, Longman Publishers, 1979

The quality of a paper is asessed according to the points given in the next section.

5 Reviews

The following points need to be covered by a review:

- language and spelling,

- structure (correct/intuitive order, useful abstract and conclusions, etc.),

- consistency of the presentation (notation, figures, graphs, etc.),

- quality of the explanations.

6 Important Notes

- The deadlines are severely strict! Take it serious!

- Take care to completely avoid any act of plagiarism for your paper/talk. Plagiarism conceives in particular:
    - not citing material that you used (including websites),
    - even if you cite, it is not proper to copy text from other sources directly into your paper (also not, if you change the order of sentences or sections before inserting it).

  Plagiarism will directly lead to a grade of 5.0 for the corresponding contribution! We will check your handed in papers and reviews for plagiarism! In order to avoid any problems, just keep to a simple guidline: Write everything in your own words and cite material you create your text from.

- Submit all your prepared materials (paper, reviews, and presentation) to Tobias Neckel, neckel@in.tum.de.