

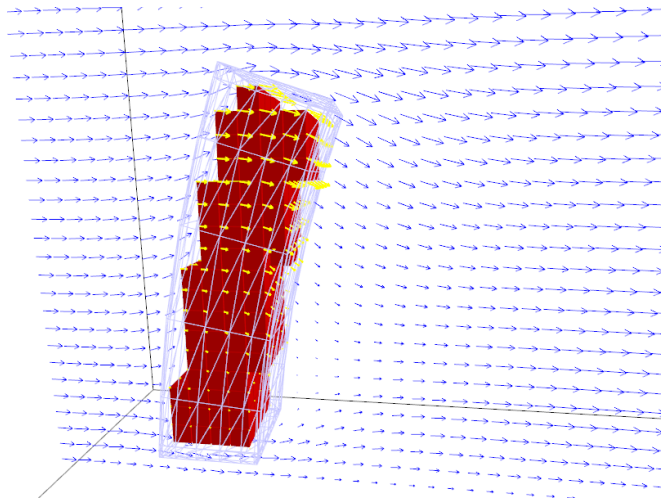
CSE Seminar - Fluid-Structure Interaction

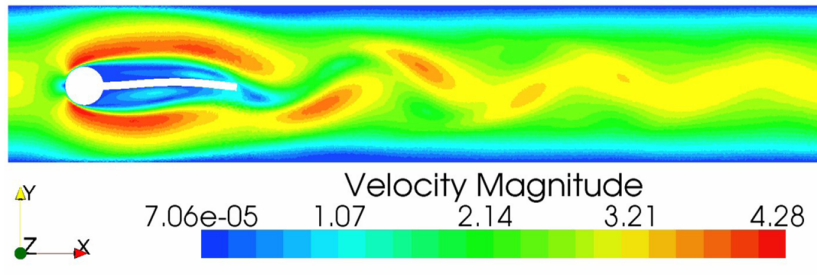
Preliminary Session

Miriam Mehl, Tobias Neckel, Benjamin Uekermann

31.01.2013







Workload and Grading

All information is also available online!

TODO

- write a paper
- write reviews about two papers of other students
- give a talk

Grading

- weights: 2 (paper) : 1 (two reviews) : 2 (talk)
- 4 ECTS

Supervisors

- Miriam Mehl, mehl@in.tum.de
- Tobias Neckel, neckel@in.tum.de
- Benjamin Uekermann, uekerman@in.tum.de (send papers, reviews and slides only to him)

Topics

	Topic	Discipl.
1	Fluidmechanics basics (modeling)	E
2	FEM for fluid equations and moving geometries	M
3	Structural mechanics basics and discretization with FEM	E+M
4	Monolithic Coupling	M+E
5	Partitioned Coupling	M+E
6	Added-mass effect (stability analysis)	M
7	Data mapping for non-matching grids	CS
8	Peano as fluid simulation tool	CS+E
9	Comsol as structure simulation tool	CS+E
10	preCICE as coupling environment for partitioned FSI	CS

Registration

- per email to uekerman@in.tum.de
- deadline: 20.02.2013
- max. 10 students
- write a short motivation letter (half page)
- send your CV and your TUM grades (if you already have grades)
- send your three topic favorites (ordered)

Schedule

20.02.2013 12:00	registration deadline
till 22.02.2013	you get your topic
till 15.04.2013	arrange meeting with your supervisor, get your literature
≈ 15.04.2013 (t.b.a.)	opening lecture, overview over the field
in between	write your paper
≈ 02.06.2013 (t.b.a.)	paper deadline, anonymous
≈ 05.06.2013 (t.b.a.)	distribution of papers for reviews
in between	write your reviews
≈ 23.06.2013 (t.b.a.)	deadline reviews, anonymous
in between	individual discussion of your paper with your supervisor, arrange meeting
in between	write final paper, prepare slides
≈ 07.07.2013 (t.b.a.)	deadline final paper and slides
≈ 10.-12.07.2013 (t.b.a.)	talks, mandatory attendance
afterwards	notification of results

Paper

- pdf, 7-10 pages, font size 12, line spacing 1, A4
- for the structure of your paper, follow e.g.
 - 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 Element of Style, Longman Publishersm, 1979

Reviews

- pdf, 2-3 pages each, font size 12, line spacing 1, A4
- the following points need to be covered by a review:
 - language and spelling
 - structure (correct/intuitive order, useful abstract and conclusion, etc.)
 - consistency of the presentation (notation, figures, graphs, etc.)
 - quality of the explanations

Talk

- 25-30 min, \approx 10-15 slides
- the students should understand everything you explain (not only your supervisor)
- focus on the important things!
- don't overlap too much with the other talks (if there's doubt, ask!)
- test it!
- length is strict! (we will interrupt you)

Important Notes

- deadlines are severely strict (check web page for exact dates)
- 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, do not copy text from other sources directly into your paper (also not, if you change the order of sentences or sections)
- write everything in your own words
- cite any material you create your text from

Summary

- registration deadline: 20.02.2013
- for registration and all your materials, email to `uekerman@in.tum.de`
- all information available on the web page