

FYTN08 vt15

Respondents: 25
Answer Count: 15
Answer Frequency: 60,00 %

General opinion

Give your opinion in the scale 1-5.

1 = very negative

2 = negative

3 = neutral

4 = positive

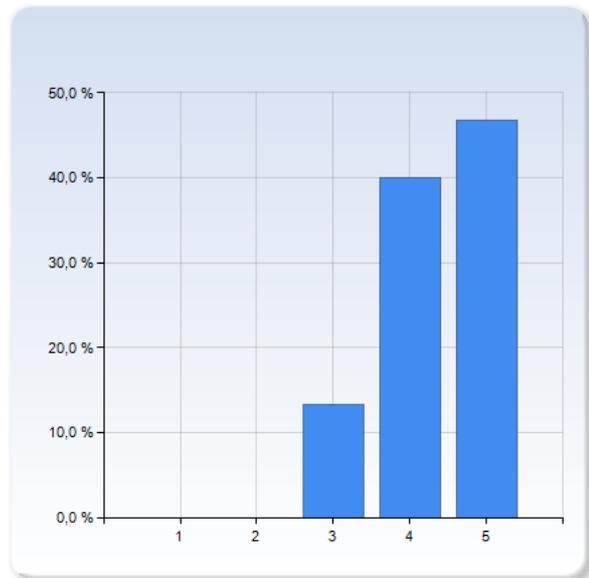
5 = very positive

The comment field in the end is very important! It will help us understand what is to be kept when the grade is good, and what to change when the grade is poor.

What is your general opinion of...

the course?

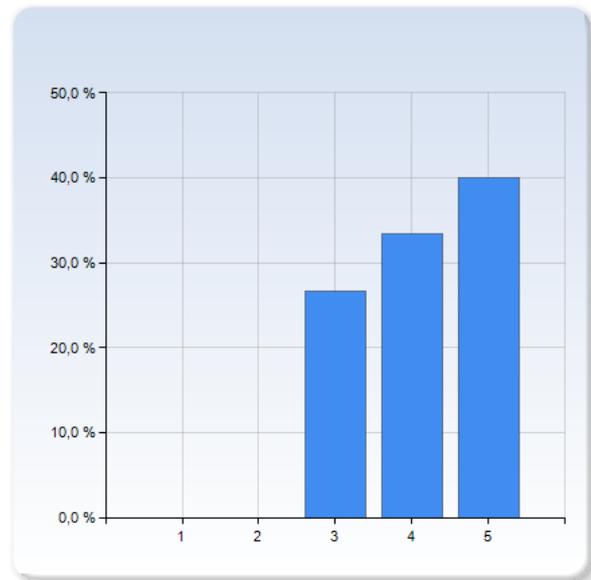
the course?	Number of Responses
1	0 (0,0%)
2	0 (0,0%)
3	2 (13,3%)
4	6 (40,0%)
5	7 (46,7%)
Total	15 (100,0%)



the course?	Mean	Standard Deviation
	4,3	0,7

"A first course in general relativity" by B.F. Schutz?

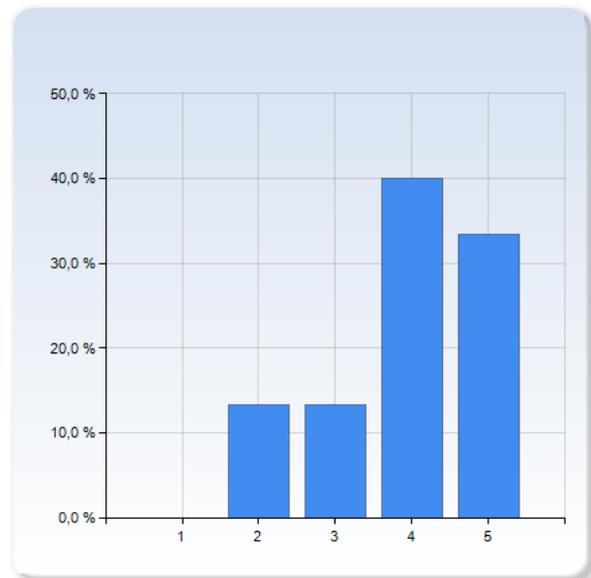
"A first course in general relativity" by B.F. Schutz?	Number of Responses
1	0 (0,0%)
2	0 (0,0%)
3	4 (26,7%)
4	5 (33,3%)
5	6 (40,0%)
Total	15 (100,0%)



"A first course in general relativity" by B.F. Schutz?	Mean	Standard Deviation
	4,1	0,8

the extra material available on the course home page?

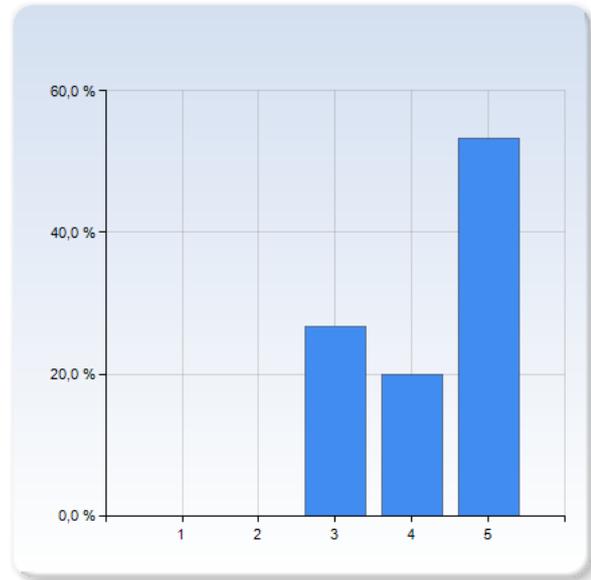
the extra material available on the course home page?	Number of Responses
1	0 (0,0%)
2	2 (13,3%)
3	2 (13,3%)
4	6 (40,0%)
5	5 (33,3%)
Total	15 (100,0%)



the extra material available on the course home page?	Mean	Standard Deviation
	3,9	1,0

the information given when the course started?

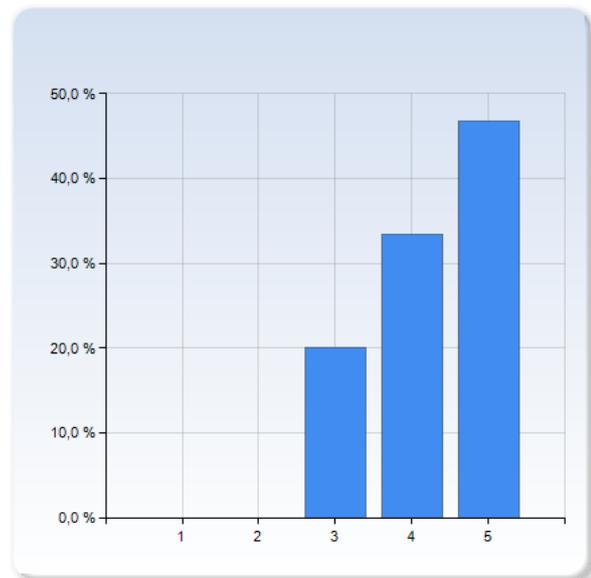
the information given when the course started?	Number of Responses
1	0 (0,0%)
2	0 (0,0%)
3	4 (26,7%)
4	3 (20,0%)
5	8 (53,3%)
Total	15 (100,0%)



the information given when the course started?	Mean	Standard Deviation
	4,3	0,9

the information about what was expected of you?

the information about what was expected of you?	Number of Responses
1	0 (0,0%)
2	0 (0,0%)
3	3 (20,0%)
4	5 (33,3%)
5	7 (46,7%)
Total	15 (100,0%)



the information about what was expected of you?	Mean	Standard Deviation
	4,3	0,8

Comment (*help us interpret your grades!*)

I really liked the book, it was easy to follow.

The most important material on the homepage is the solutions for the homeworks. But they are bad written and hard to understand.

See comments to #4.

The book is ok, I personally preferred to use a number of different references, especially on the more mathematical aspects however it was a good reference for the applications that we studied in the second part of the course.

-I thought the course was really nice in general.

-The book explained most stuff on an appropriate level, although some stuff could have been explained in more details, e.g. notation concerning the covariant derivative and the effect of gravitational waves through the geodesic deviation equation.

-Never really checked out the extra material so...

-Info was good, maybe what was expected on the oral exam could have been repeated on some occasions (like to focus on physical interpretation of terms in the result of derivations)

The course content was interesting and the material was presented in a good order. Lectures could be improved though.

The book does not go through a lot of details, especially about manifolds.

Lectures and problem solving sessions

Give your opinion in the scale 1-5.

1 = very negative

2 = negative

3 = neutral

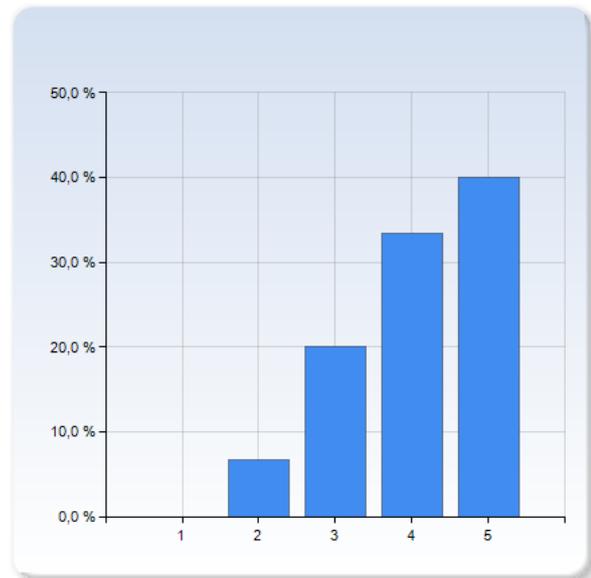
4 = positive

5 = very positive

What is your general opinion of...

the lectures?

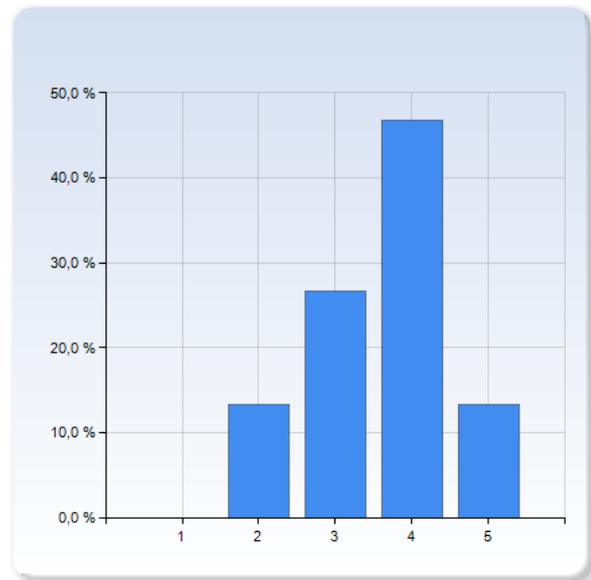
the lectures?	Number of Responses
1	0 (0,0%)
2	1 (6,7%)
3	3 (20,0%)
4	5 (33,3%)
5	6 (40,0%)
Total	15 (100,0%)



the lectures?	Mean	Standard Deviation
	4,1	1,0

the problem solving sessions?

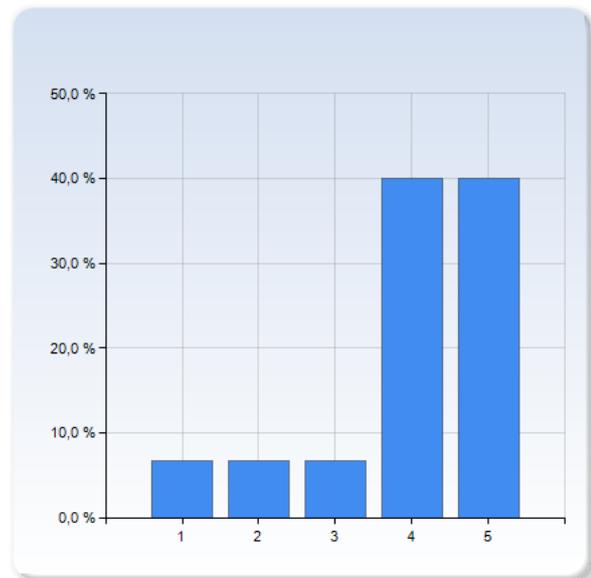
the problem solving sessions?	Number of Responses
1	0 (0,0%)
2	2 (13,3%)
3	4 (26,7%)
4	7 (46,7%)
5	2 (13,3%)
Total	15 (100,0%)



	Mean	Standard Deviation
the problem solving sessions?	3,6	0,9

the balance between lectures and problem-solving sessions?

the balance between lectures and problem-solving sessions?	Number of Responses
1	1 (6,7%)
2	1 (6,7%)
3	1 (6,7%)
4	6 (40,0%)
5	6 (40,0%)
Total	15 (100,0%)



	Mean	Standard Deviation
the balance between lectures and problem-solving sessions?	4,0	1,2

Comment (help us interpret your grades!)

I want more conceptual talk.

The problem solving sessions did not give much. Either I already had solved the exercise in a proper way, and if not, I did not get any more understanding. Because it went on too fast and the teacher appeared to have too little knowledge on the subject.

I realize it's economically awkward, but my opinion is that most of the students would benefit greatly from more problem-solving sessions during which all the (many and various) confusions may be solved.

The lectures sometimes lacked structure and perhaps full sentences in the explanations.

-I think the lecturer was good most of the time, could perhaps write down motivations to certain steps more, as even if he says them it takes some time to write it down as a student and then you miss what is said next

-Problem solving sessions, good to have in order to see the solutions if you have been stuck. Also, I guess it's good in order to practice presentations, although it usually was the same people up at the board (I prefer the system where a note is sent around and everyone writes down what exercise they can consider to present and then the supervisor can choose the ones that haven't been up yet/the much). The exercise supervisor was good also I think, very helpful. But sometimes could appear a bit unprepared when presenting the solution to hand-in exercise.

-I think it was a good balance between lectures and exercise sessions, although it was hard to be able to do the exercises at the end, felt like one had too little time.

Too much time in the lectures was spent on just writing down formulas and doing calculations, while concepts and assumptions of derivations were not emphasized enough (time-wise; every now and then when concepts were actually explained it was done better than average).

Problem solving sessions were not very well prepared and student's solutions were not criticized, even when it was obviously lacking -- constructive criticism is essential for learning.

Lecture content was too dense and fast pace.

Examination

Give your opinion in the scale 1-5.

1 = very negative

2 = negative

3 = neutral

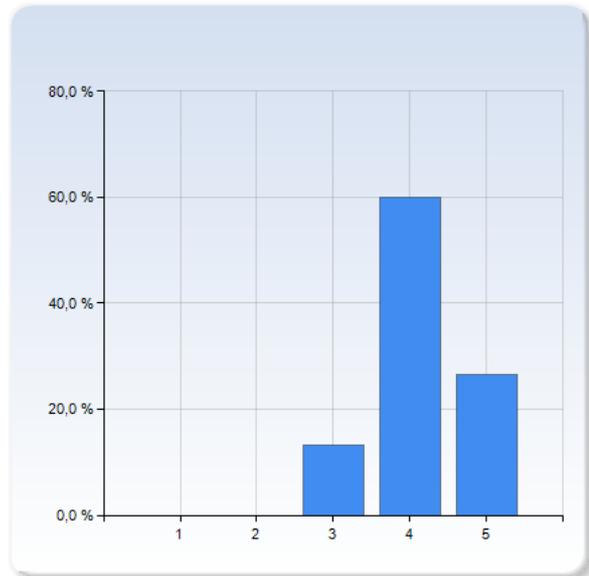
4 = positive

5 = very positive

What is your general opinion of...

the hand-in exercises?

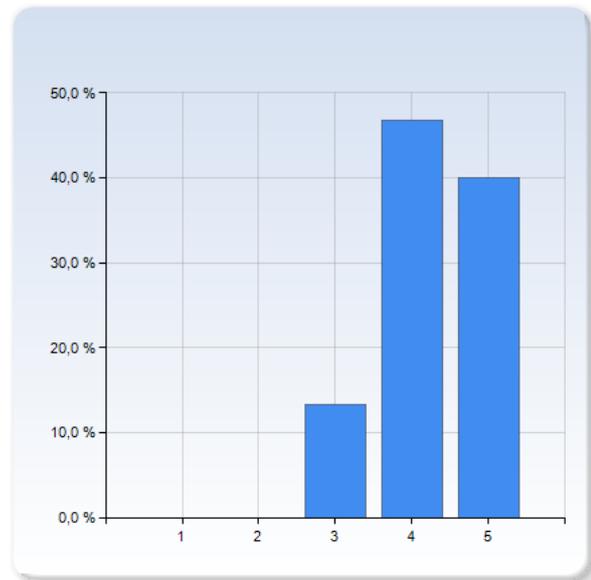
the hand-in exercises?	Number of Responses
1	0 (0,0%)
2	0 (0,0%)
3	2 (13,3%)
4	9 (60,0%)
5	4 (26,7%)
Total	15 (100,0%)



	Mean	Standard Deviation
the hand-in exercises?	4,1	0,6

the presentations?

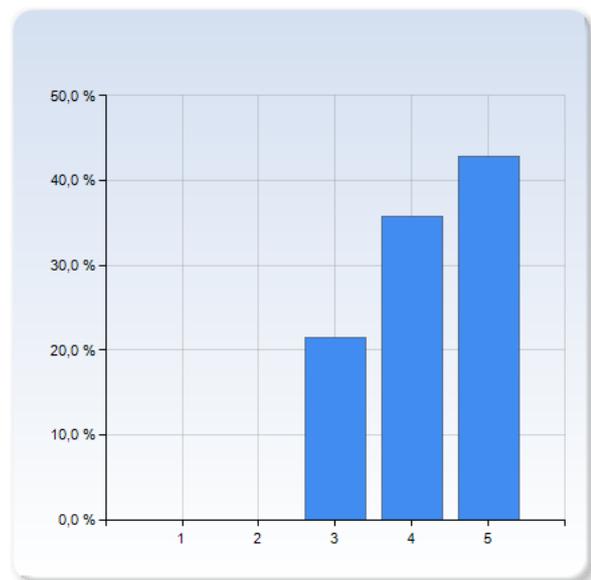
the presentations?	Number of Responses
1	0 (0,0%)
2	0 (0,0%)
3	2 (13,3%)
4	7 (46,7%)
5	6 (40,0%)
Total	15 (100,0%)



the presentations?	Mean	Standard Deviation
	4,3	0,7

the oral exam?

the oral exam?	Number of Responses
1	0 (0,0%)
2	0 (0,0%)
3	3 (21,4%)
4	5 (35,7%)
5	6 (42,9%)
Total	14 (100,0%)



the oral exam?	Mean	Standard Deviation
	4,2	0,8

Comment (help us interpret your grades!)

The hand in exercises was hard and took a lot of time. I would want fewer of them but instead recommended exercises that is easier. It felt odd to study on advanced topics for the presentation when you have a hard time with the basics.

They're all okay.

The presentations were surprisingly good.

-Hand-in exercises were good in order to practice the concepts

-Nice with some presentations, to look a bit deeper at some stuff...but was a bit hard to really understand that much of the articles

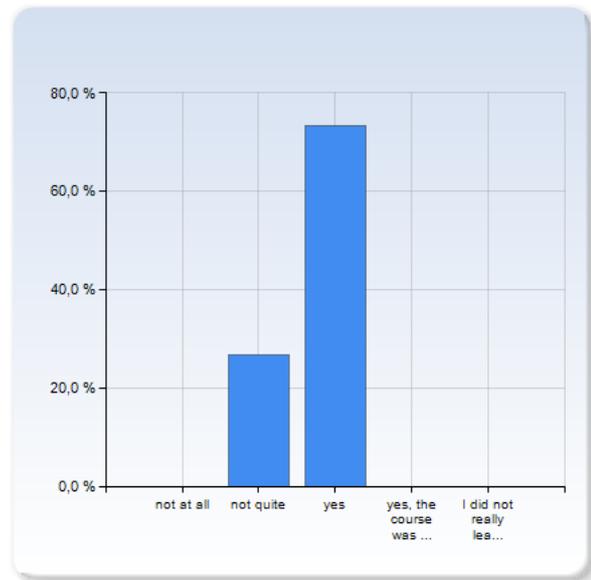
-I feel oral exams are always a bit hard to prepare to, as I don't really know what I should focus on. But I think it was good.

Feedback on the presentations would be a good so that people could improve their presentation skills.

Extremely high work load, very many exercises to do.

Did you have enough prior knowledge for this course?

Did you have enough prior knowledge for this course?	Number of Responses
not at all	0 (0,0%)
not quite	4 (26,7%)
yes	11 (73,3%)
yes, the course was a bit easy	0 (0,0%)
I did not really learn anything new	0 (0,0%)
Total	15 (100,0%)



	Mean	Standard Deviation
Did you have enough prior knowledge for this course?	2,7	0,5

If your prior knowledge was not fairly appropriate, please comment!

What prior knowledge was missing/overlapping?

What is your background (year of higher education, relevant courses)?

This course becomes very very difficult without a background rich in (relatively) advanced linear algebra. Simply getting used to the notation and mathematical framework is so time consuming that there's almost no time for the fun (physical!) bits. I consider this a problem, since I don't have that linear algebra background (only took the first course Algebra 1).

First year master's student without too much

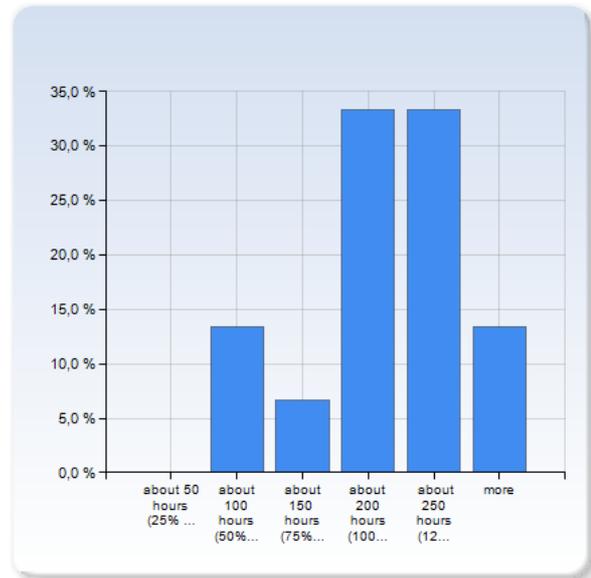
Some more maths and classical mechanics could be appropriate

No knowledge of four velocity, tensors or gauge theory and in general, the notation was fairly new.

4th year

How much time have you spent on the course? (In total you are supposed to spend about 200 hours or 25 work-days on a 7.5 hp course)

How much time have you spent on the course? (In total you are supposed to spend about 200 hours or 25 work-days on a 7.5 hp course)	Number of Responses
about 50 hours (25% of allotted time)	0 (0,0%)
about 100 hours (50% of allotted time)	2 (13,3%)
about 150 hours (75% of allotted time)	1 (6,7%)
about 200 hours (100% of allotted time)	5 (33,3%)
about 250 hours (125% of allotted time)	5 (33,3%)
more	2 (13,3%)
Total	15 (100,0%)



How much time have you spent on the course? (In total you are supposed to spend about 200 hours or 25 work-days on a 7.5 hp course)	Mean	Standard Deviation
	4,3	1,2

Comment

A lot to do at the end with hand-ins, take home exam and oral exam.

I do not really know how much time I spent on the course.

I actually time-logged all my time usage. Since I did not have another time-consuming course on the side I was able to put more time into this than would have been otherwise possible. However, I did not spend that much time actually reading the book, learning "extra stuff" or something. A lot of the time went into the exercises (I did all, except two from on set 4 if I remember correctly).

Exact breakdown:

General Relativity □ 242:37:33 □

Exercise session □ 07:00:00 □

Hand-in exam □ □ 41:54:07 □

Homework □ □ 71:07:40 □

Lecture □ □ □ 31:30:00 □

Oral exam □ □ 31:12:48 □

Presentation □ □ 29:18:21 □

Self study □ □ 30:34:37 □

Either this course should be split into two, like the quantum mechanics and statistical theory in Physics 2 or make the course worth more hp. This course is terribly dense.

What did you particularly like with the course?

What did you particularly like with the course?

Black holes and the cosmology part!

The subject is very interesting and the treatment is on a good level.

The theory itself is obviously fascinating.

Fun and interesting topic, liked the approach of the book

Subject matter covered -- it gave a good and mathematically thorough overview of GR and its applications.

Very interesting topic and a good lecturer!

The whole course was very good!

I think the course in general is good.

What in the course do you think could improve?

What in the course do you think could improve?

Nothing!

Make it less dense and/or increase number of exercise sessions.

* Theory part of the course should also be part of the assigned homework (such as some more complicated derivations that one is expected to know on the exam). It would be helpful to have a concise list of concepts and results for every topic that the student is expected to master. This would make self-study more efficient for students and would also serve as a helpful checklist to make sure that one is ready to do the homework problems (the difficult part of the homework problems is not the calculations but figuring out the initial assumptions that one has to make, since often they're not presented in a clear manner).

* Drop the detailed derivations from the lectures. Very few can really follow truly follow the more involved ones in the lectures, people just copy blindly without really thinking along. But that is not productive -- we have the book or they could be put up as PDFs on the web. In order for people to understand them they need to perform these themselves anyway. Instead, the lectures should emphasize the main steps and "tricks" that the derivation uses. Performing the actual derivation in its full mathematical glory should be left as homework (but as a part of the possible hand-in one's so that people would actually do it in the full glory, instead of glancing at it and going "yeah, I get the gist" but really not being able to perform the derivation).

* More discussions and criticism of student's solutions (the latter for the problem session). Thinking not blind copying makes people learn, hence discussion is absolutely necessary. However, just discussing among themselves, say when doing the homework problems, is not enough, since often people have misconceptions that can only be resolved by someone more experienced. And these are difficult concepts, so even smart students can have problems. Similarly for the problem sessions, somewhat lacking solutions (not incorrect but lacking reasoning) were sometimes accepted in the problem sessions. The problem sessions should be the place where a lot of discussion would take place.

Some more time between last hand-in and the exam!

I don't know what to say. On the one hand, it seems like the course goes through the whole course book and that is simply too dense. On the other, shortening the course content might not be an option.

It seems to me unfair that this masters course is only worth 7.5 hp and others, where the workload is halved, is also worth 7.5 hp (still in astronomy/tehp).

Still, there are students who seem not to mind and go through the course perfectly fine.

Feedback for the presentation

I think the course is good as is.

Other comments (both positive and negative) on the course?

Other comments (both positive and negative) on the course?

The home exam had very interesting exercises which really helped to clarify many aspects of the course.