11^{th} HGSFP Winter School

Obergurgl 2018

Final Report

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Heidelberg University
HGSFP

General Summary

This document concludes the 11th HGSFP Winter School that took place at the University Center in Obergurgl from 26th to 30th of January 2018. In total 48 graduate students from Heidelberg and 10 lecturers participated in the five-day event. The aim of the Winter School was to give students the opportunity to get insights into other research fields in Heidelberg apart from their own field. In the course of this, one of the focal points was the scientific exchange between the students themselves and students and lecturers in a friendly atmosphere. To this end, we organized a scientific programme consisting of 10 lectures given by speakers from Heidelberg and other universities and two poster sessions with elevator talks (see Appendix A).

The general interest in the school was very high such that we had to select the 42 participants from 73 applications in total. Fortunately none of our speakers had to cancel and in addition we where able to replace all students that had to cancel on short notice by other applicants. Consequentially, all the reserved 58 beds in Obergurgl where filled.

Lectures

The lecture topics covered the six largest branches of the HGSFP and were arranged in sessions of three parallel lectures each. In this way the students had the possibility to choose the three topics they were most interested in, while leaving enough free time for social activities and exchange. The great majority of students preferred this format over a tighter schedule with less parallel sessions (see Appendix B1). When organizing the lectures, our main consideration was to choose speakers that are known to give good introductory courses. We tried to keep the lectures rather informal such that students felt animated to ask questions and discussion developed during the sessions. The response of the students to this style of lectures was very good and they appreciated the broad range of topics ranging from String theory to Glacier physics (see Appendix B2).

Poster Sessions

The participants had the chance to present their own work in poster sessions that took place on two of the evenings. We decided to keep the short elevator talk sessions, that had first been introduced in the winter school 2017, in place. In this short round of talks each student got the chance to introduce his poster in a one minute pitch talk. Again, the general feedback to these elevator talks was very good. Following the tradition of the winter school, all students and lecturer had the chance to elect the winner of the winter school poster price by anonymous vote. The name of the winner will be engraved into the *HGSFP Wanderpokal*.

Venue

The conference took place at the University Center in Obergurgl. The great advantage of this venue is that it offers a lot of space with several lecture rooms while being in direct proximity to a ski resort. This goes hand in hand with the spirit of the winter school of combining a rich lecture programme with enough time for social activities as skiing or hiking. The local staff was very helpful and contributed to everything running smoothly during our stay. The venue got an excellent rating by all participants and both the very good food and very clean rooms where highly appreciated. Even though the University Center significantly increased its prises over the years, we believe that it is still completely out of competition for what it offers.

Travel

After the evaluation of the winter school 2017, we had decided to travel by bus over night again. Even though travelling over night is certainly quite exhausting, the great majority of students had preferred this option over losing the additional time by travelling during the day. This years survey shows a very similar outcome.

Social Event

Following the tradition, the first evening of the Winter School was devoted to the social event — Eisstockschiessen. The participants appreciated this chance to get to know each other very much and, to our delight, most of the speakers joined as well. As our survey shows, some of the students did even wish for an additional organized social event on the last evening.

Final Remarks

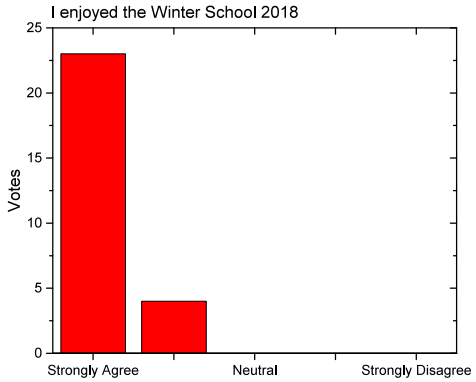
Summarized, we think that this years Winter School was a great success. The feedback of students and lectures was very good and we believe that the goals of the school could be achieved. Everything went exactly as planned and the five days passed without any problems arising. We are very thankful for the great organizational and financial support of the HGSFP for this event and we hope that the tradition of the Winter School will be carried on in the future.

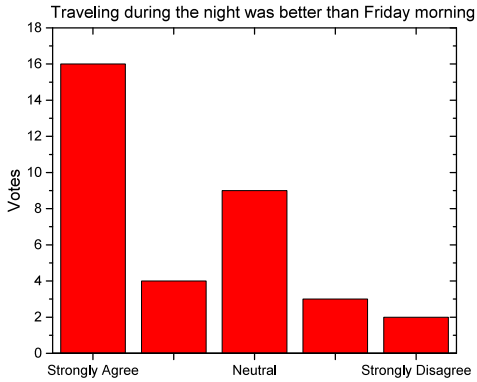
A Schedule of the HGSFP Winterschool 2018

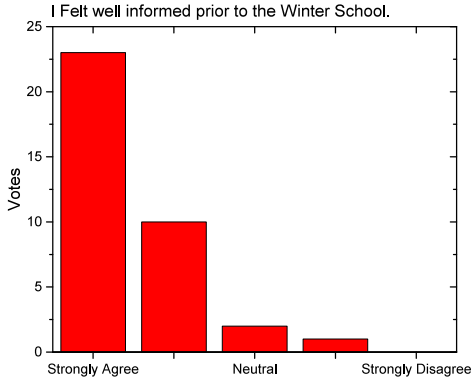
Time	Friday 26th	Saturday 27th	Sunday 28th	Monday 29th	Tuesday 30
07:30	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast
08:30 - 10:15	Arrival in Obergurgl	**Quantum Simulation with Ultracold Atoms** P. Preiß	**The Physics of Glaciers** P. Bohleber	**Computers like brains - Physical model systems of neural circuits** K. Meier	**Computers like brains - Physical model systems of neural circuits** K. Meier
		Fascinating aspects of globular star clusters G Parmentier	**General relativity in everyday life (and I don't mean GPS)** B.M. Schäfer	**Introduction to stringy physics** C. Lawrie	**Introduction to stringy physics** C. Lawrie
		Quantum electrodynamics of bound systems Z. Harman	**Astrostatistics** M. Fouesneau	**As rare as it gets: Searching for charged lepton flavour violation** N. Berger	**As rare as it gets: Searching for charged lepton flavour violation** N. Berger
10:30 - 15:30		Break Practicing elevator talks	Break	Break	Break
17:00 - 18:45		**Quantum Simulation with Ultracold Atoms** P. Preiß	**The Physics of Glaciers** P. Bohleber	**Tornado and Severe Weather Research in Europe** Bernold Feuerstein	Depature
		Fascinating aspects of globular star clusters G Parmentier	**General relativity in everyday life (and I don't mean GPS)** B.M. Schäfer		
	Dinner at 18:00	**Quantum electrodynamics of bound systems** Z. Harman	**Astrostatistics** M. Fouesneau		
19:00		Dinner	Dinner	Dinner	
20:00 - open End	Social Event	Elevator Talks	Elevator Talks	Introduction to HGSFP	
		Poster Session	Poster Session		

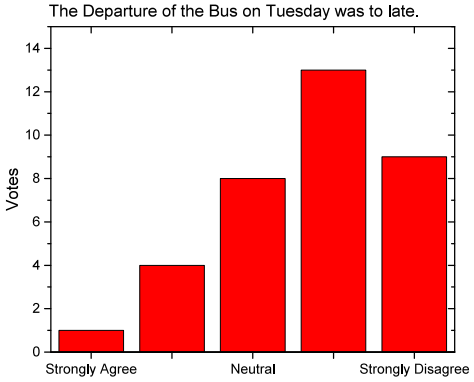
B Evaluation

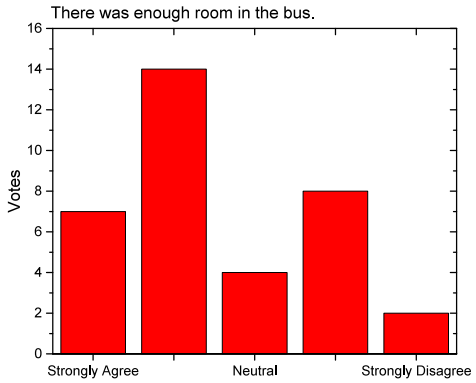
B1 General Evaluation

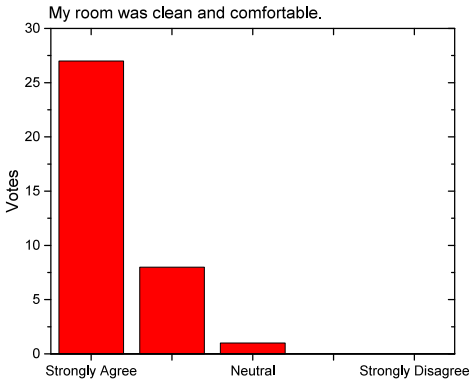


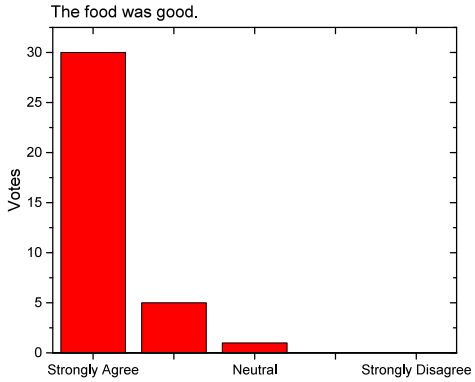











The food was good.
Votes
0
5
10
15
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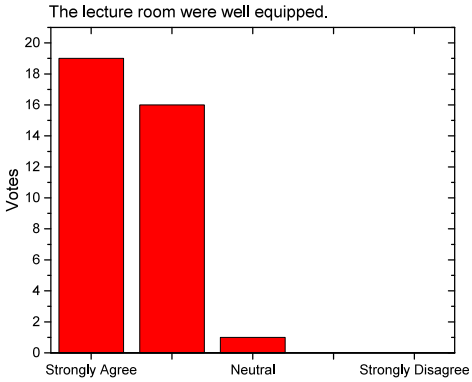
25
30
Strongly Agree
Neutral
Strongly Disagree


The lecture room were well equipped.
Votes
0
2
4
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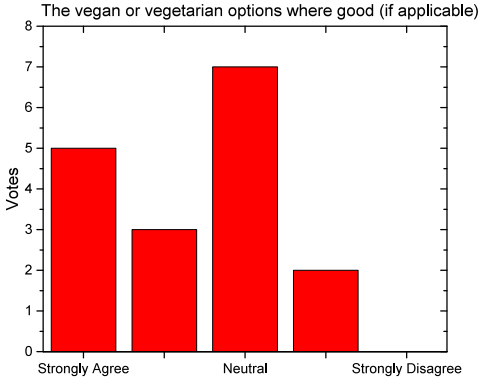
Strongly Agree
Neutral
Strongly Disagree


The vegan or vegetarian options where good (if applicable)
Votes
0
1
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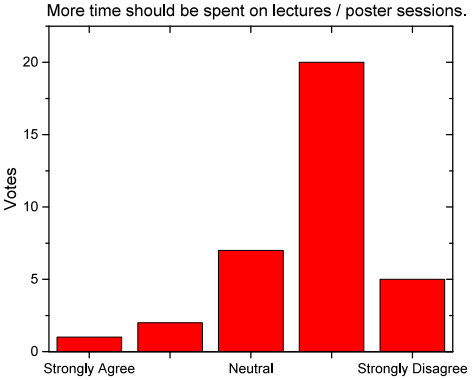
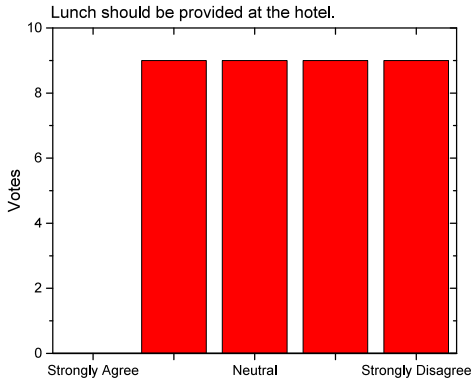
8
Strongly Agree
Neutral
Strongly Disagree


More time should be spent on lectures / poster sessions.
Votes
0
5
10
15
20
Strongly Agree
Neutral
Strongly Disagree


Lunch should be provided at the hotel.
Votes
0
2
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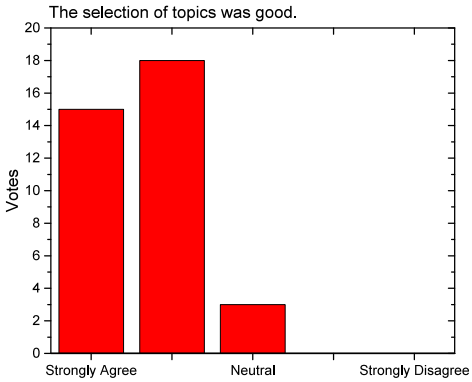
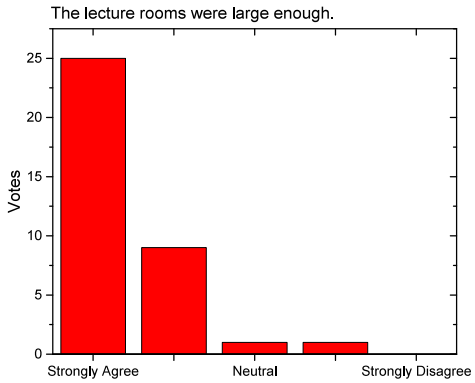
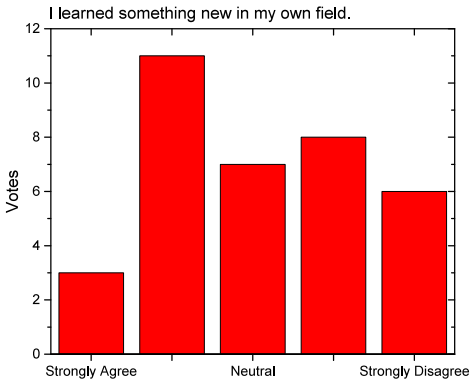
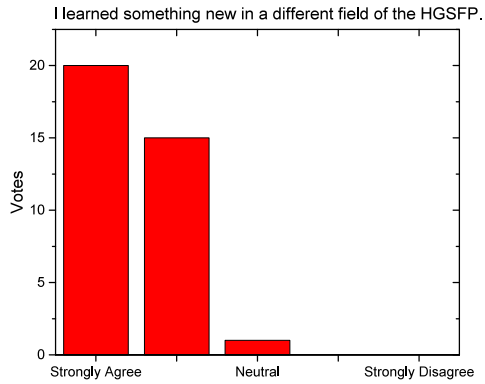
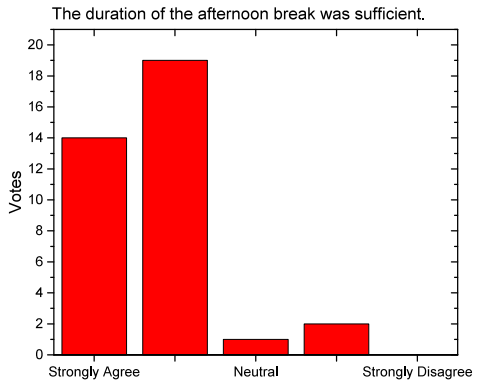
10
Strongly Agree
Neutral
Strongly Disagree

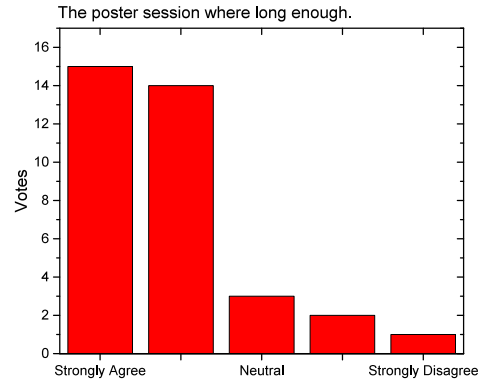

The selection of topics was good.
Votes
0
2
4
6
8
10
12
14
16
18
20
Strongly Agree
Neutral
Strongly Disagree

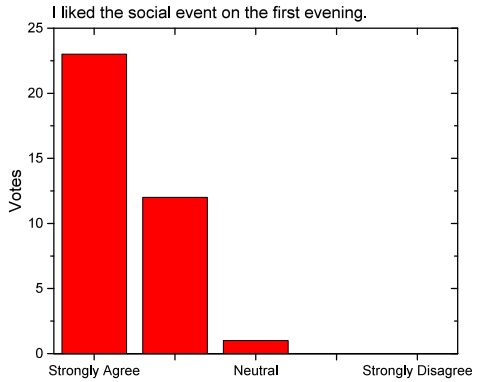

The lecture rooms were large enough.
Votes
0
5
10
15
20
25
Strongly Agree
Neutral
Strongly Disagree

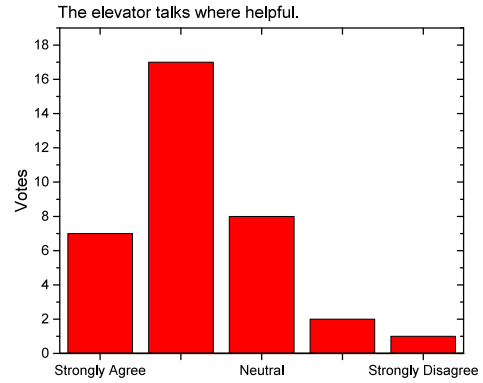

I learned something new in my own field.
Votes
0
2
4
6
8
10
12
Strongly Agree
Neutral
Strongly Disagree

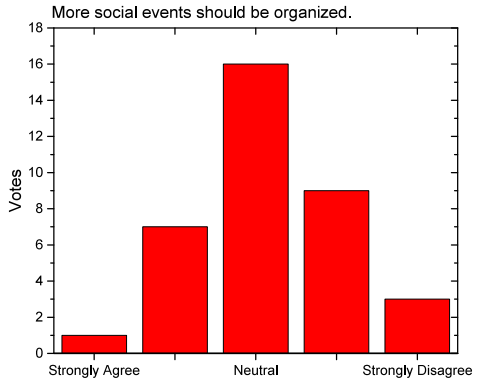










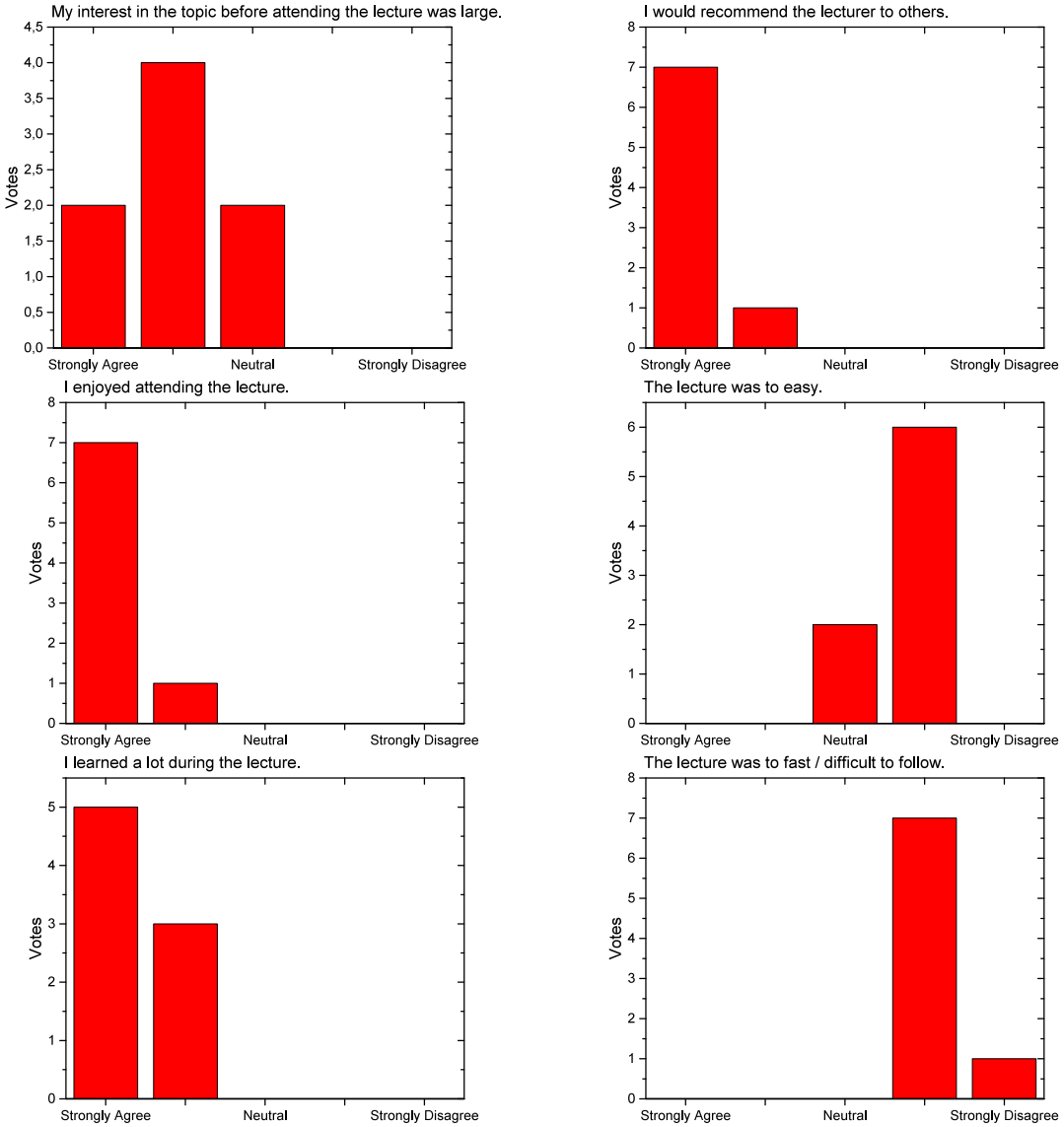


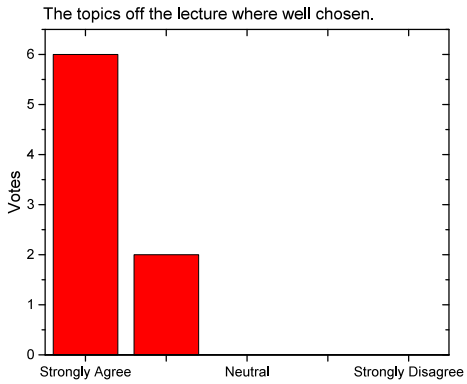
Comments

- Great Hotel
- Reduce the amount of parallel sessions.
- More time for breakfast by starting lectures at 9.
- Telegram group was a nice idea.
- Do HGSFP introduction lecture on first day.
- Second social event on the last day would be great.

B2 Lecture Evaluations

Philipp Preiß — Quantum Simulation with Ultracold Atoms




The topics off the lecture where well chosen.
Votes
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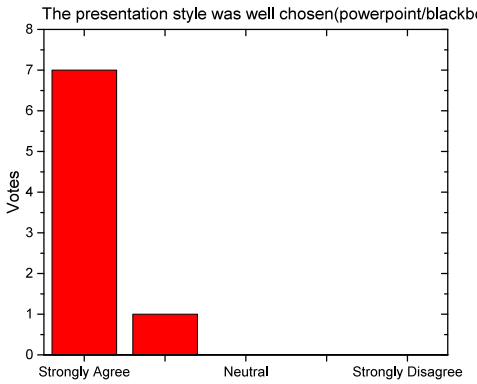
Strongly Agree
Neutral
Strongly Disagree


The presentation style was well chosen(powerpoint/blackboard).
Votes
0
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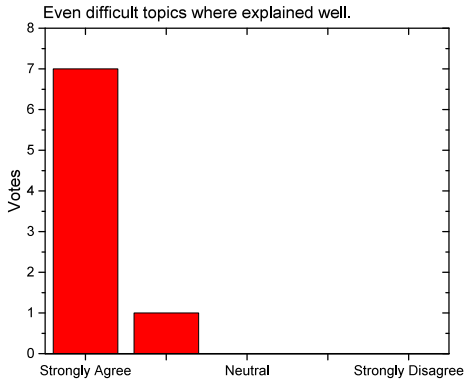
Strongly Agree
Neutral
Strongly Disagree


Even difficult topics where explained well.
Votes
0
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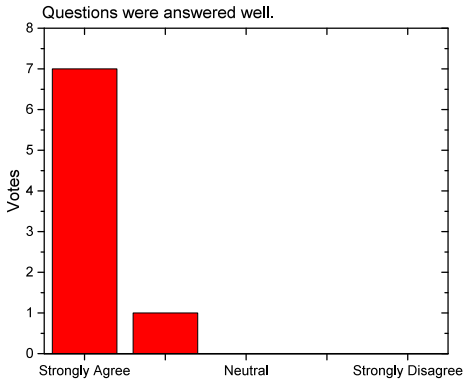
8
Strongly Agree
Neutral
Strongly Disagree


Questions were answered well.
Votes
0
1
2
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4
5
6
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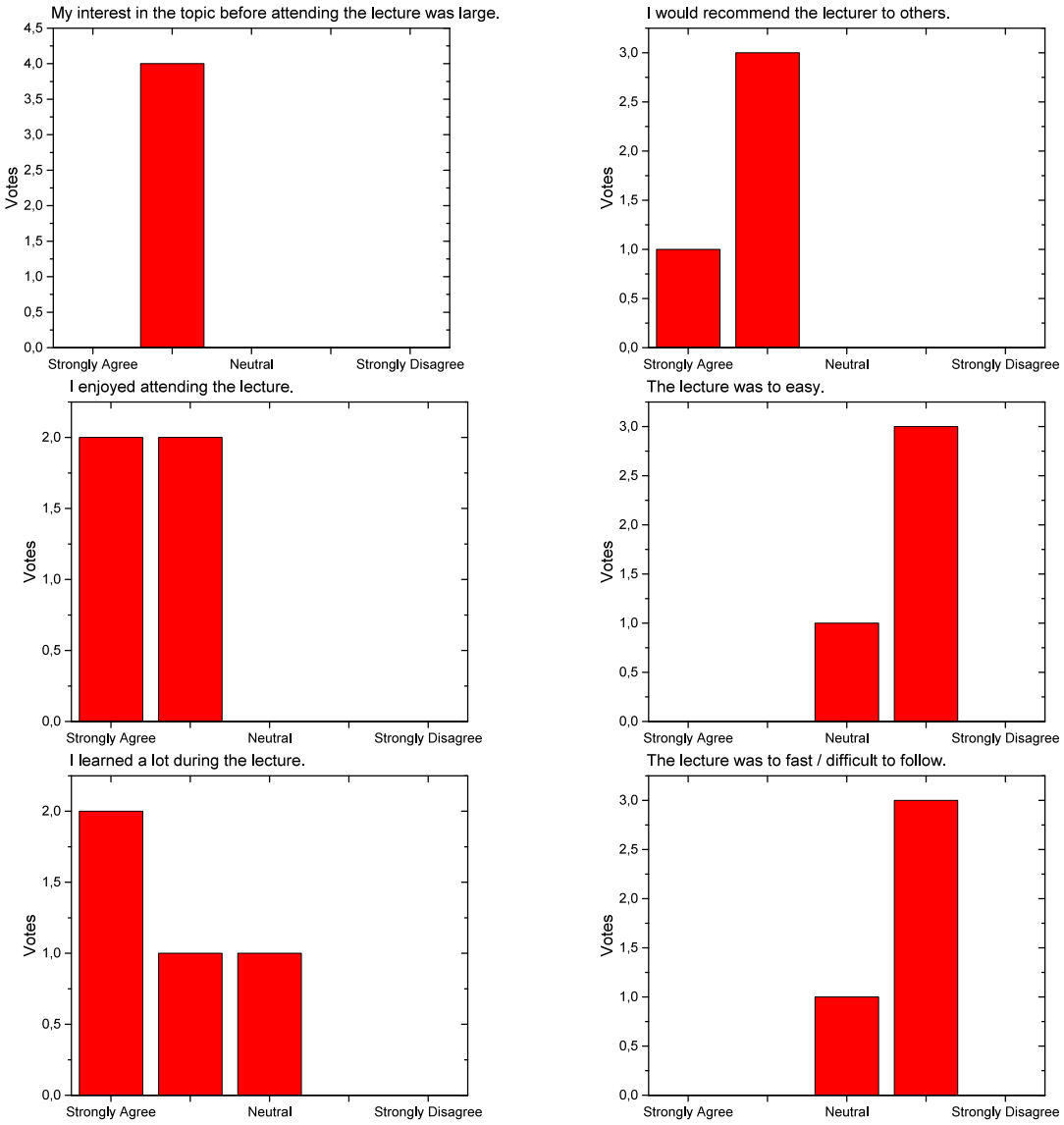
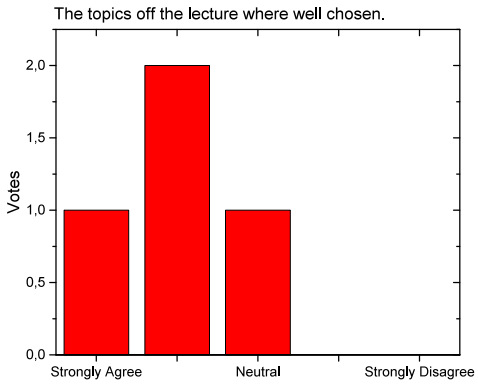
8
Strongly Agree
Neutral
Strongly Disagree

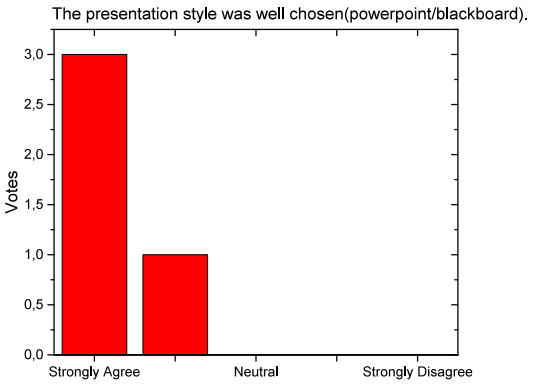
Comments

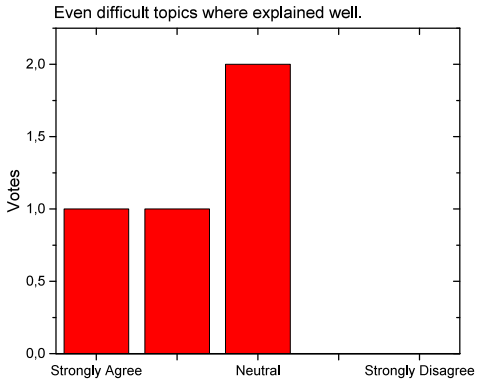
-

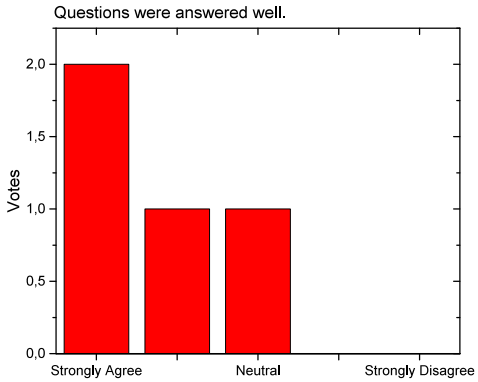
Genevieve Parmentier — Fascinating aspects of globular star clusters




The topics off the lecture where well chosen.
Votes
0,0
0,5
1,0
1,5
2,0
Strongly Agree
Neutral
Strongly Disagree


The presentation style was well chosen(powerpoint/blackboard).
Votes
0,0
0,5
1,0
1,5
2,0
2,5
3,0
Strongly Agree
Neutral
Strongly Disagree

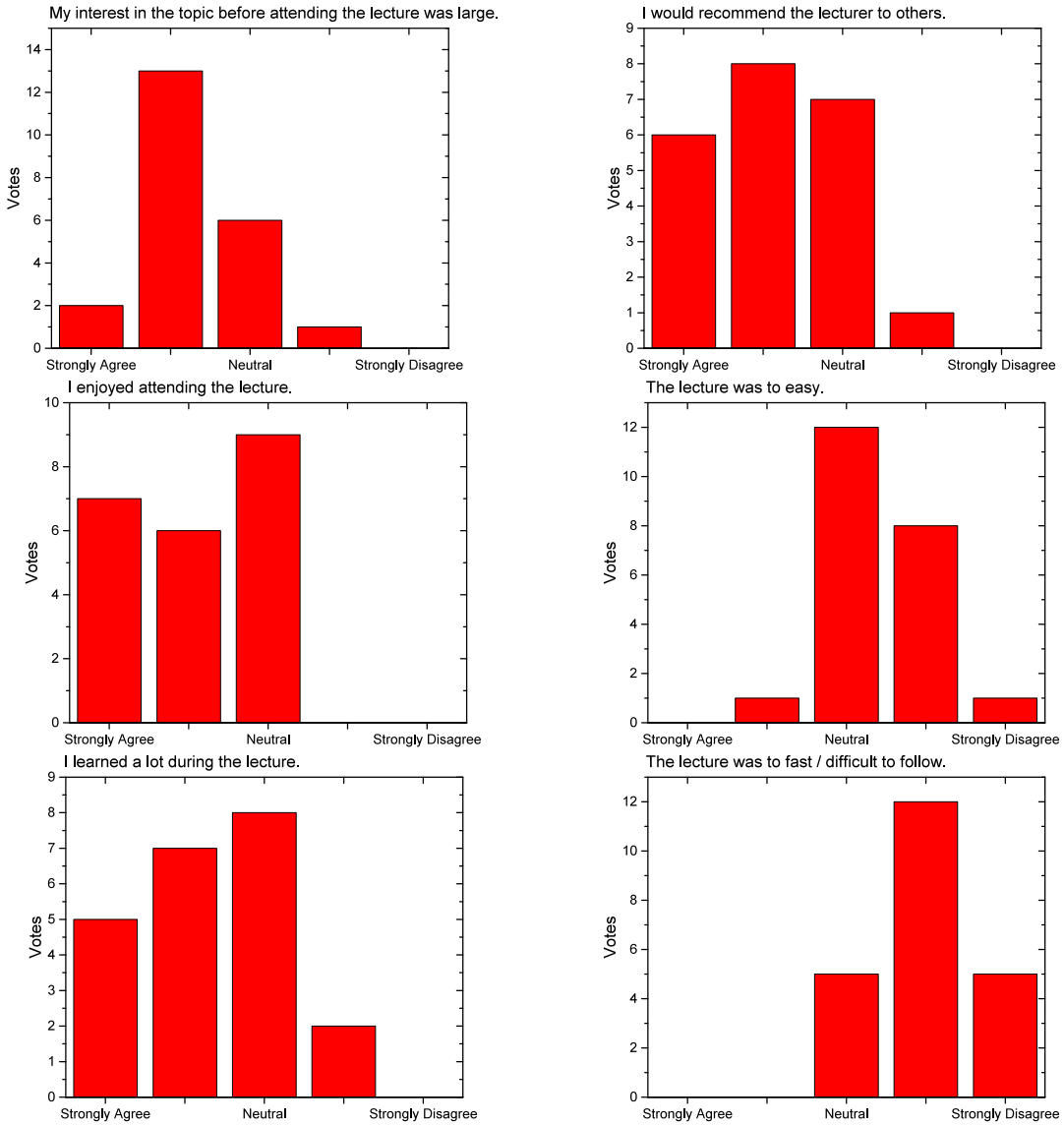

Even difficult topics where explained well.
Votes
0,0
0,5
1,0
1,5
2,0
Strongly Agree
Neutral
Strongly Disagree

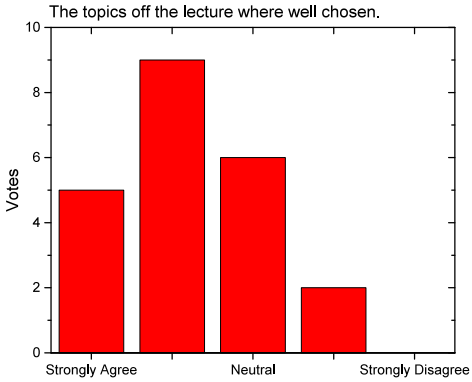

Questions were answered well.
Votes
0,0
0,5
1,0
1,5
2,0
Strongly Agree
Neutral
Strongly Disagree

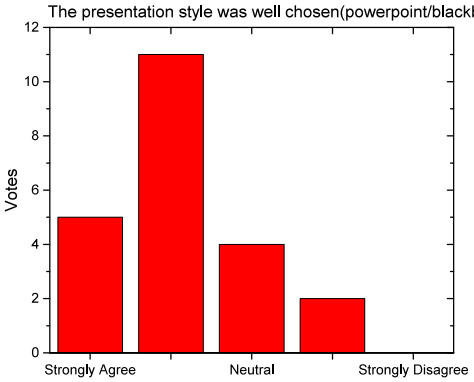
Comments

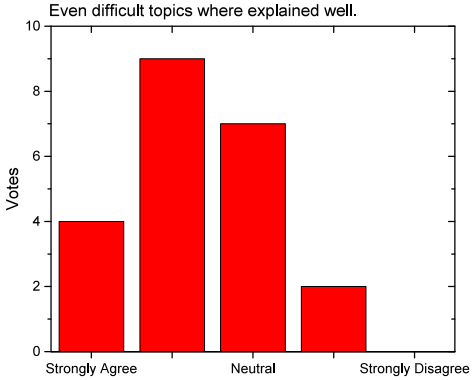
-

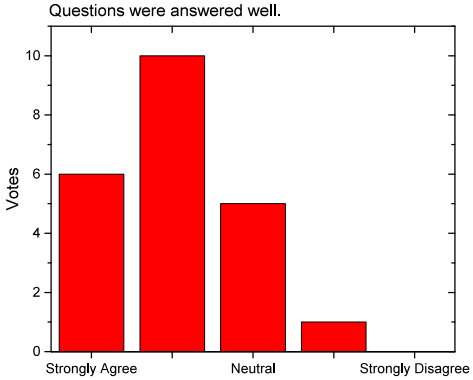
Zoltan Harman — Quantum electrodynamics of bound systems







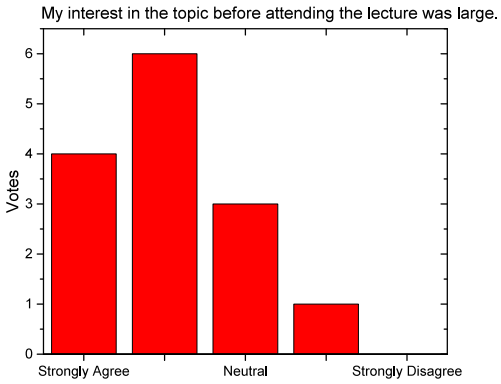


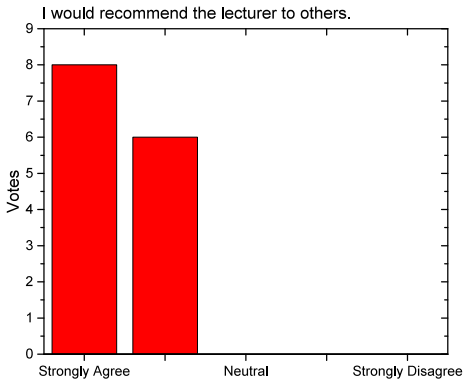


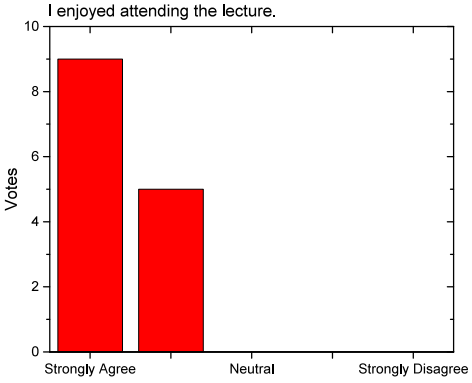
Comments

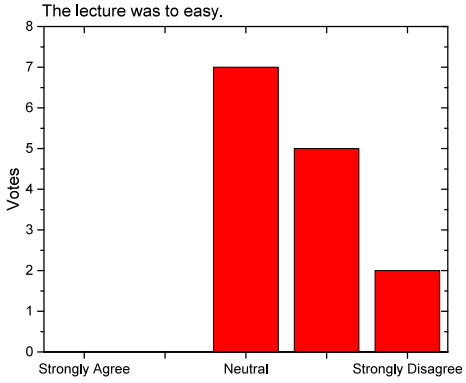
- Overall good and interesting but a bit too specialised.
- Question were not answered very well.

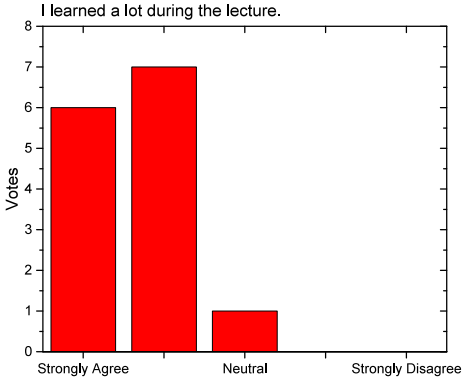
Pascal Bohleber — The Physics of Glaciers

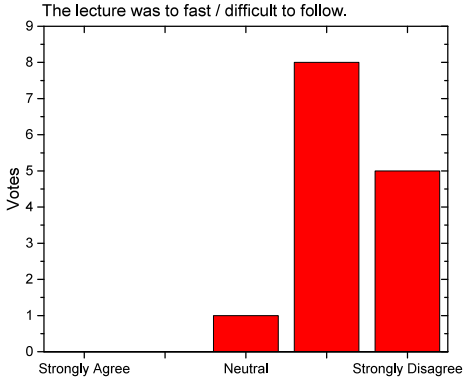


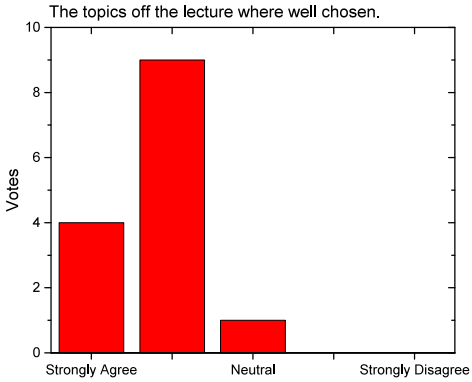


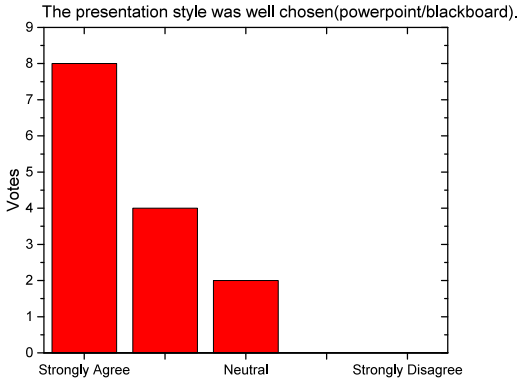









The topics off the lecture where well chosen.
Votes
0
2
4
6
8
10
Strongly Agree
Neutral
Strongly Disagree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4
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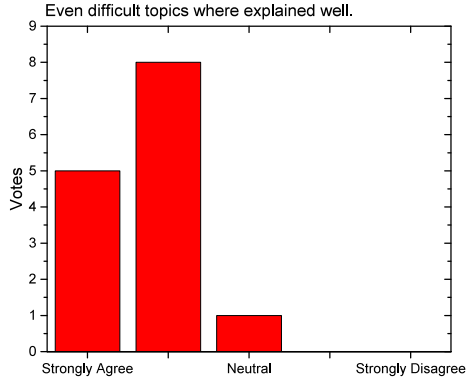
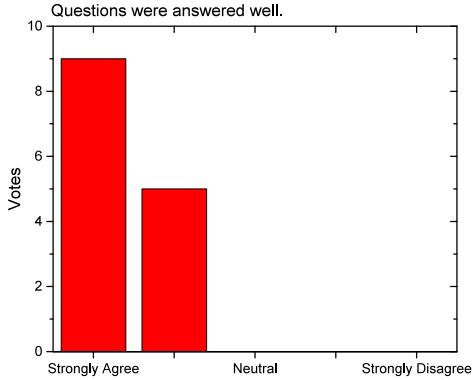
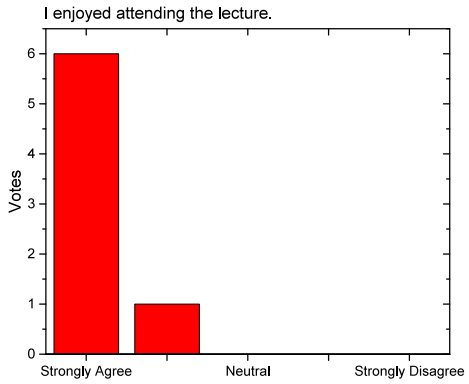
6
7
8
9
Strongly Agree
Neutral
Strongly Disagree


Even difficult topics where explained well.
Votes
0
1
2
3
4
5
6
7
8
9
Strongly Agree
Neutral
Strongly Disagree


Questions were answered well.
Votes
0
2
4
6
8
10
Strongly Agree
Neutral
Strongly Disagree

Comments

-


I enjoyed attending the lecture.
Votes
0
1
2
3
4
5
6
Strongly Agree
Neutral
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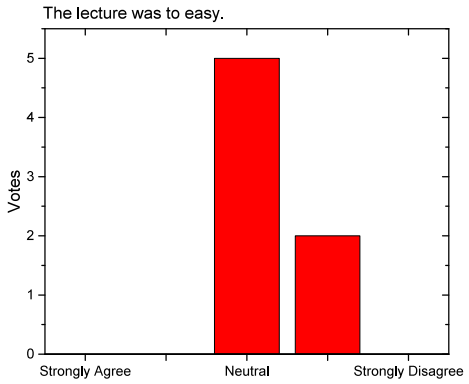
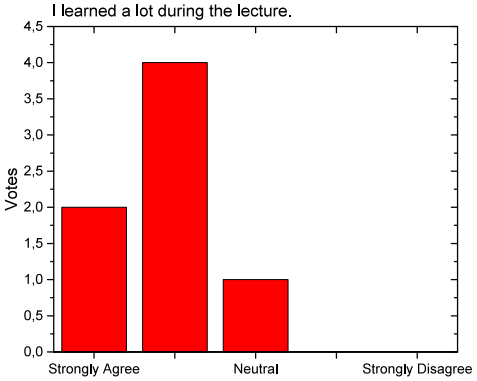
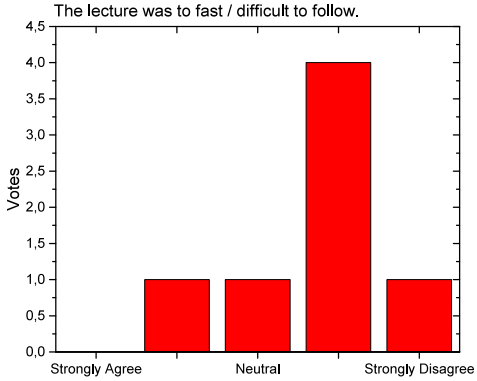

The lecture was to easy.
Votes
0
1
2
3
4
5
Strongly Agree
Neutral
Strongly Disagree


I learned a lot during the lecture.
Votes
0,0
0,5
1,0
1,5
2,0
2,5
3,0
3,5
4,0
4,5
Strongly Agree
Neutral
Strongly Disagree


The lecture was to fast / difficult to follow.
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0,0
0,5
1,0
1,5
2,0
2,5
3,0
3,5
4,0
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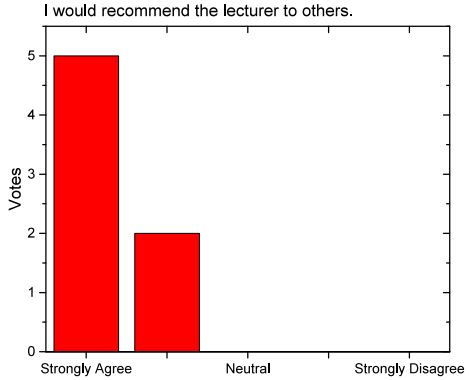
I would recommend the lecturer to others.
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1
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3
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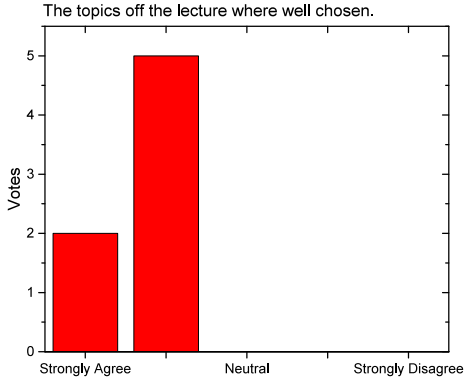
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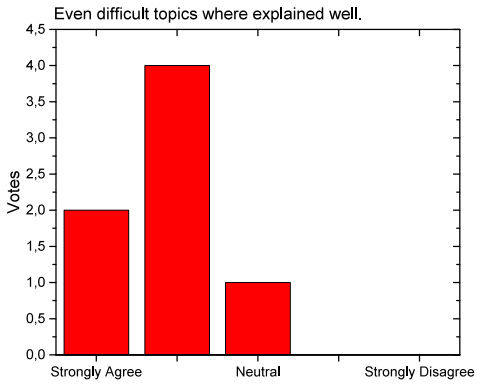
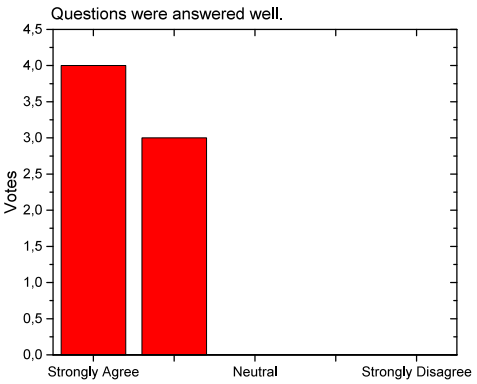
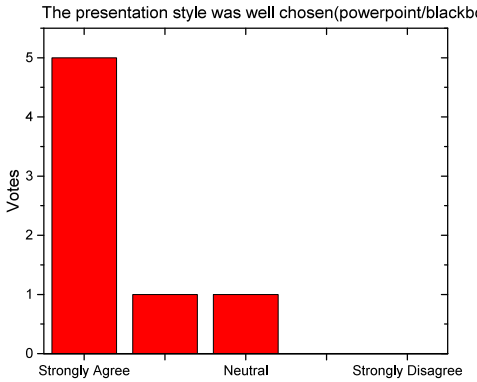
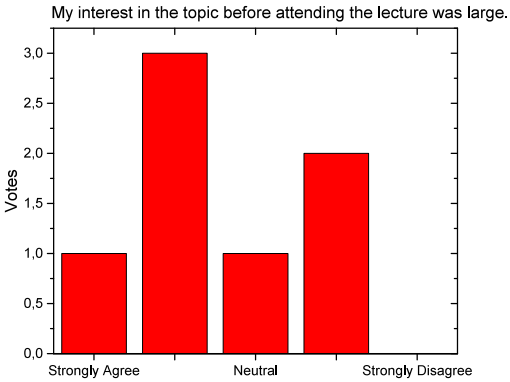


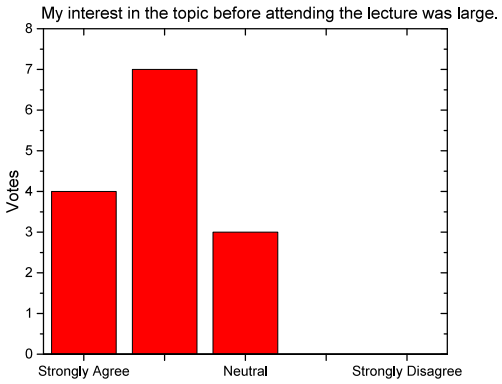






Comments

- Just amazing.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8
Strongly Agree
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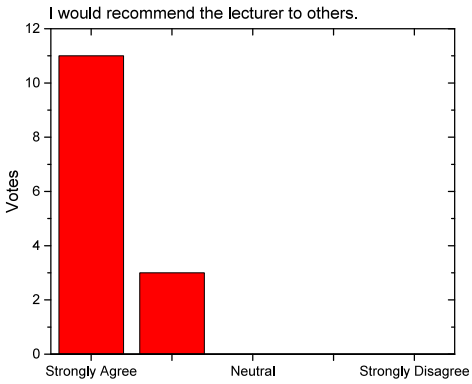
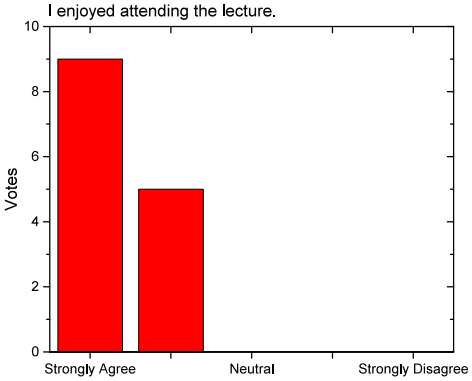

I would recommend the lecturer to others.
Votes
0
2
4
6
8
10
12
Strongly Agree
Neutral
Strongly Disagree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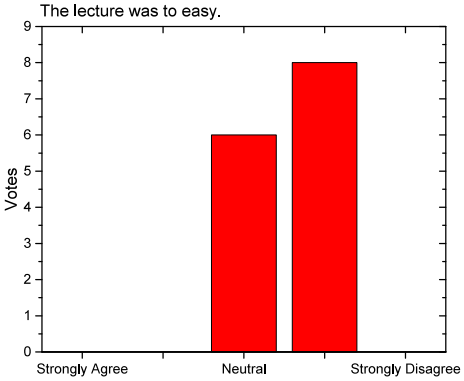
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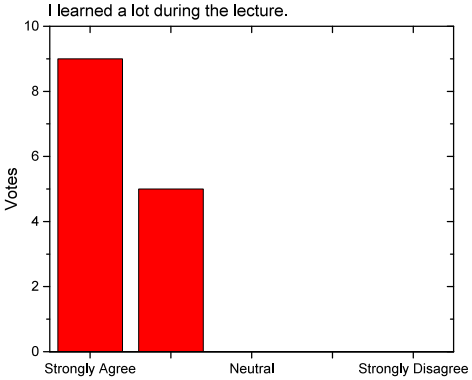
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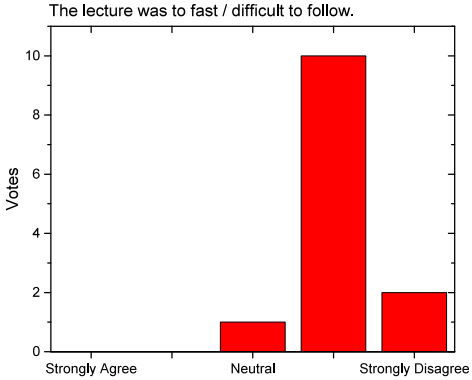
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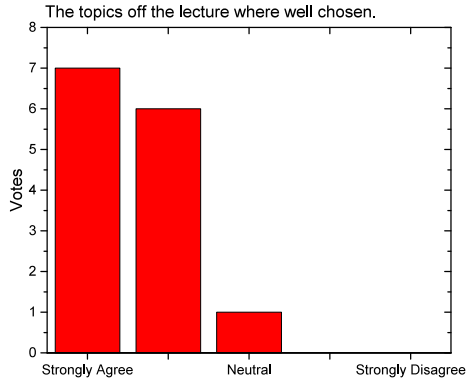
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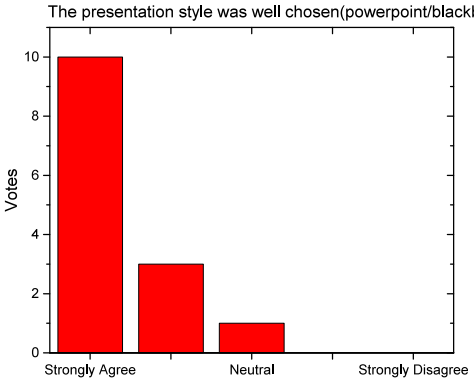
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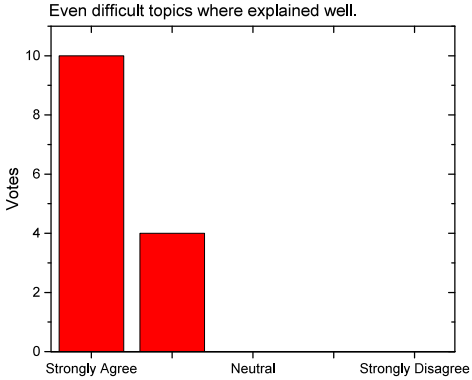
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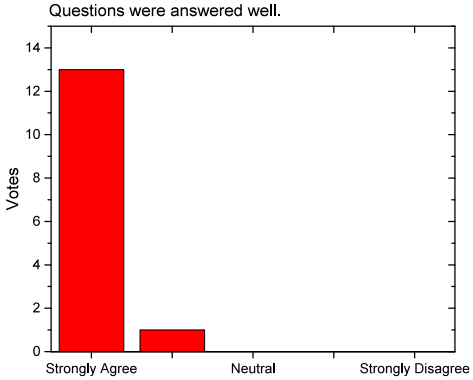
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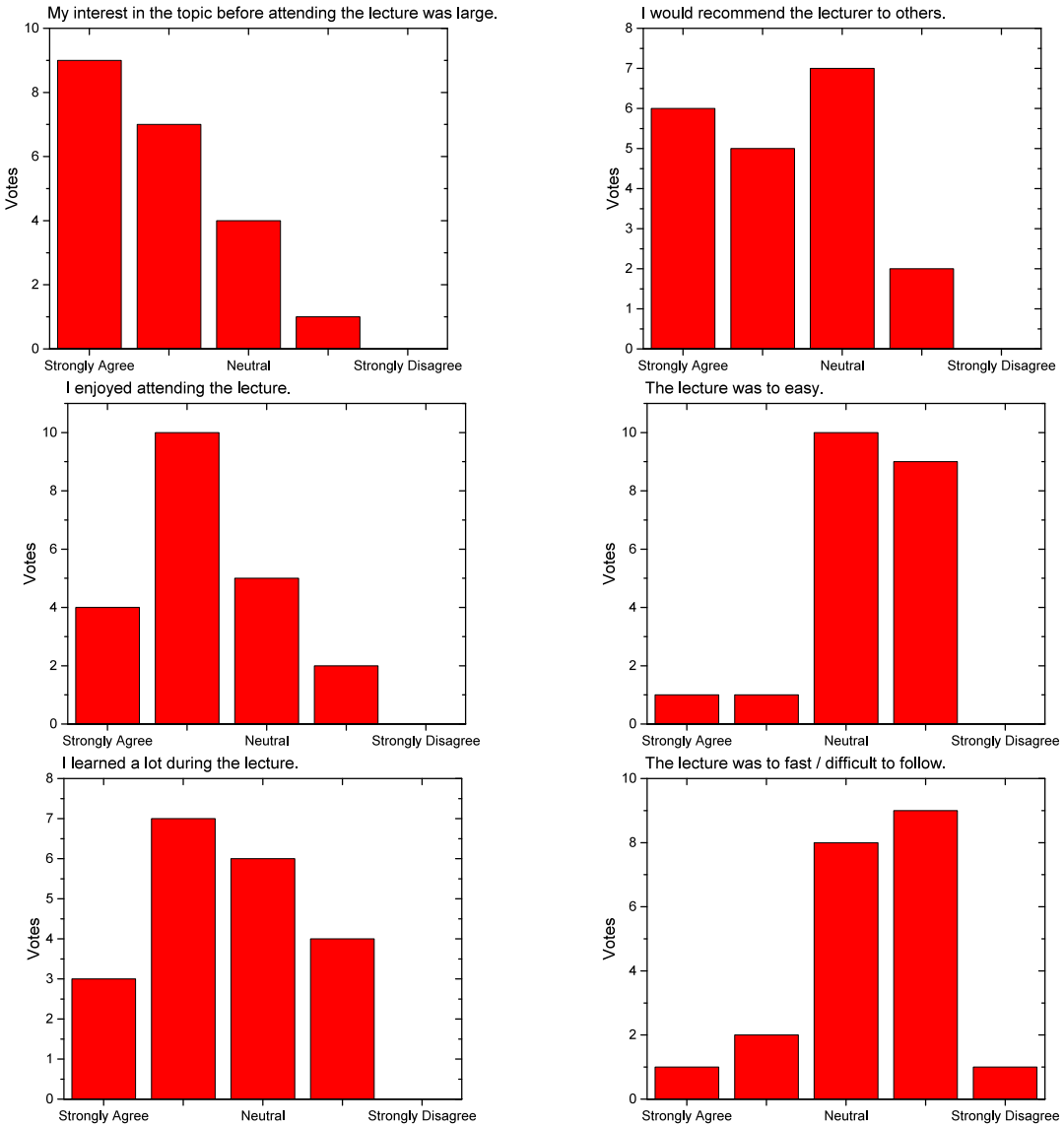
Comments

-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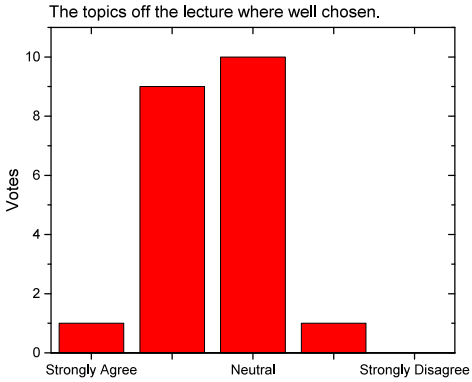
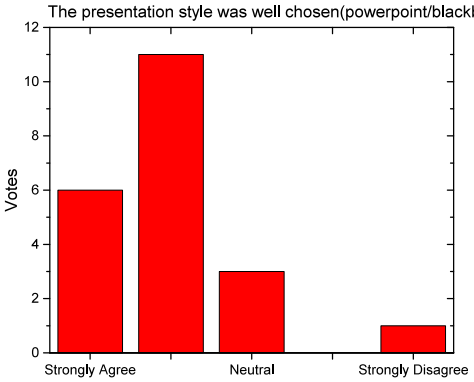
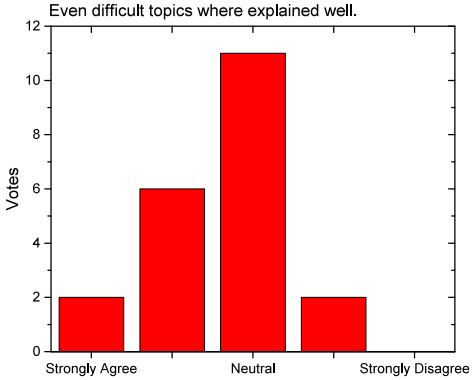
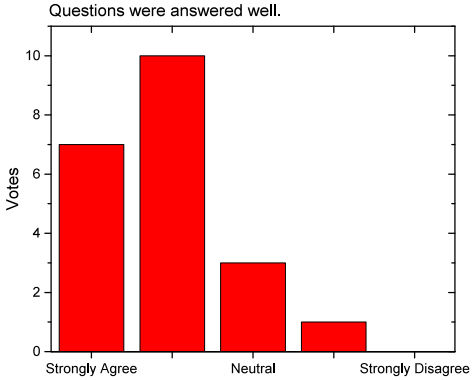
Neutral
Strongly Disagree





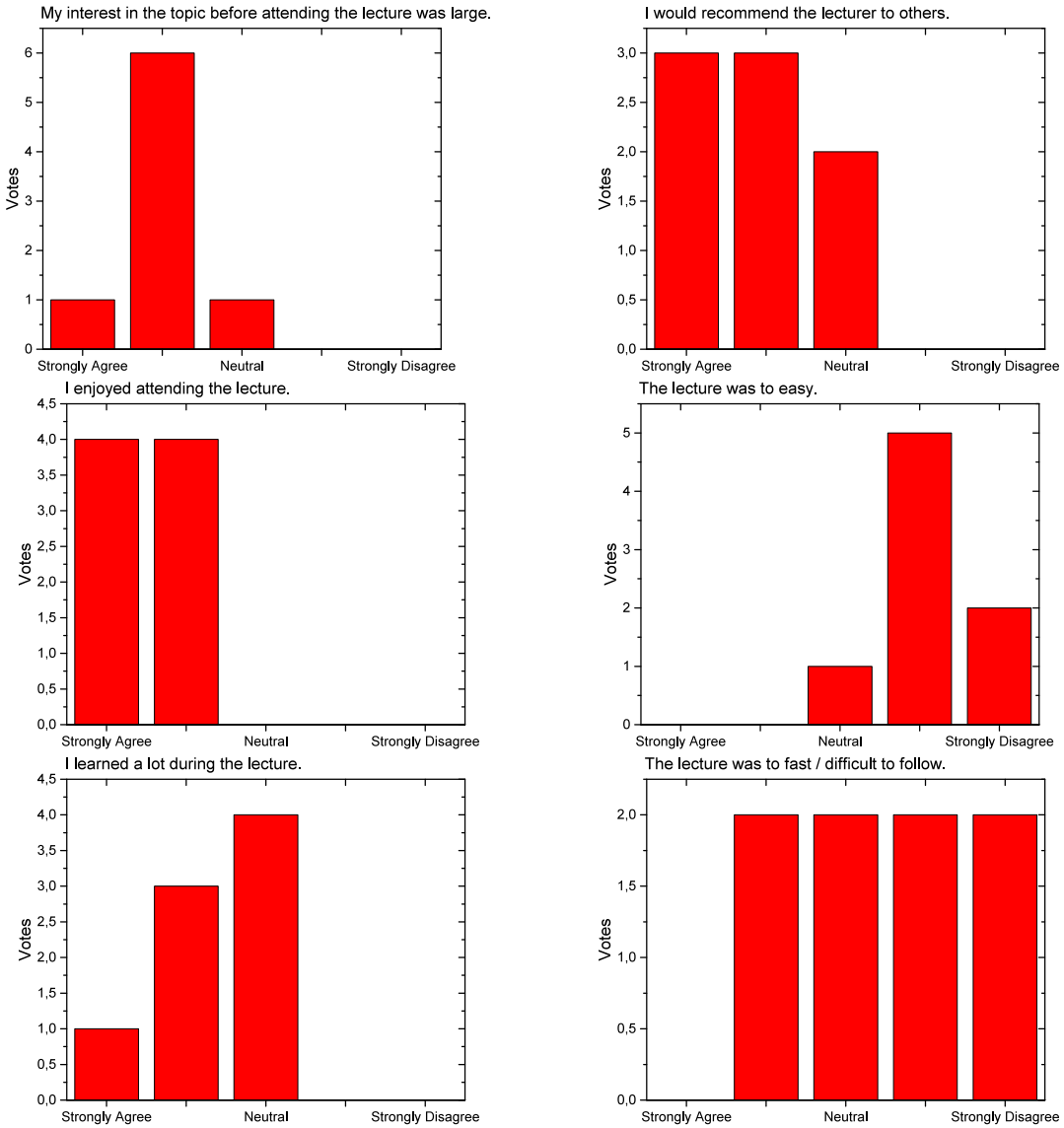


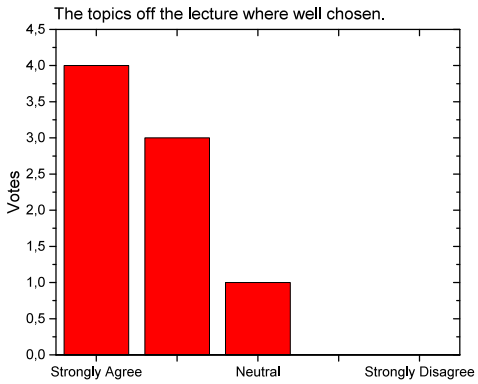


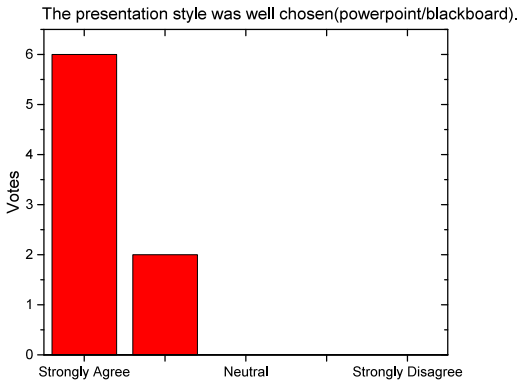
Comments

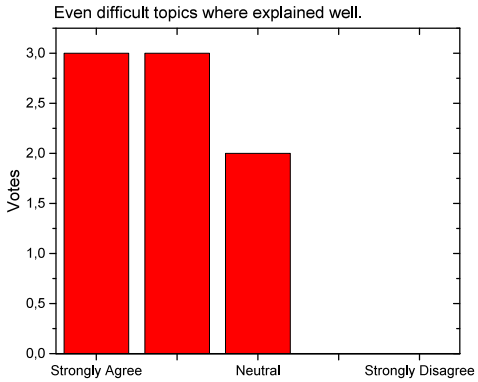
- Hands on demo was great unfortunately too little time.
- Speaker had to jump a lot in his slides.

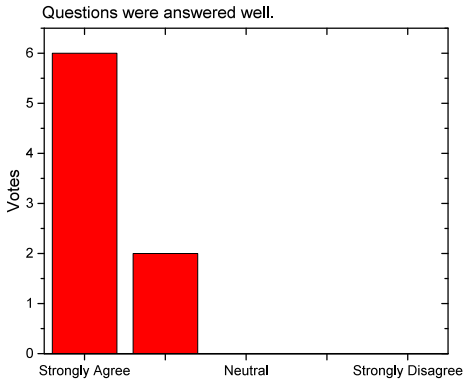
Craig Lawrie — Introduction to stringy physics







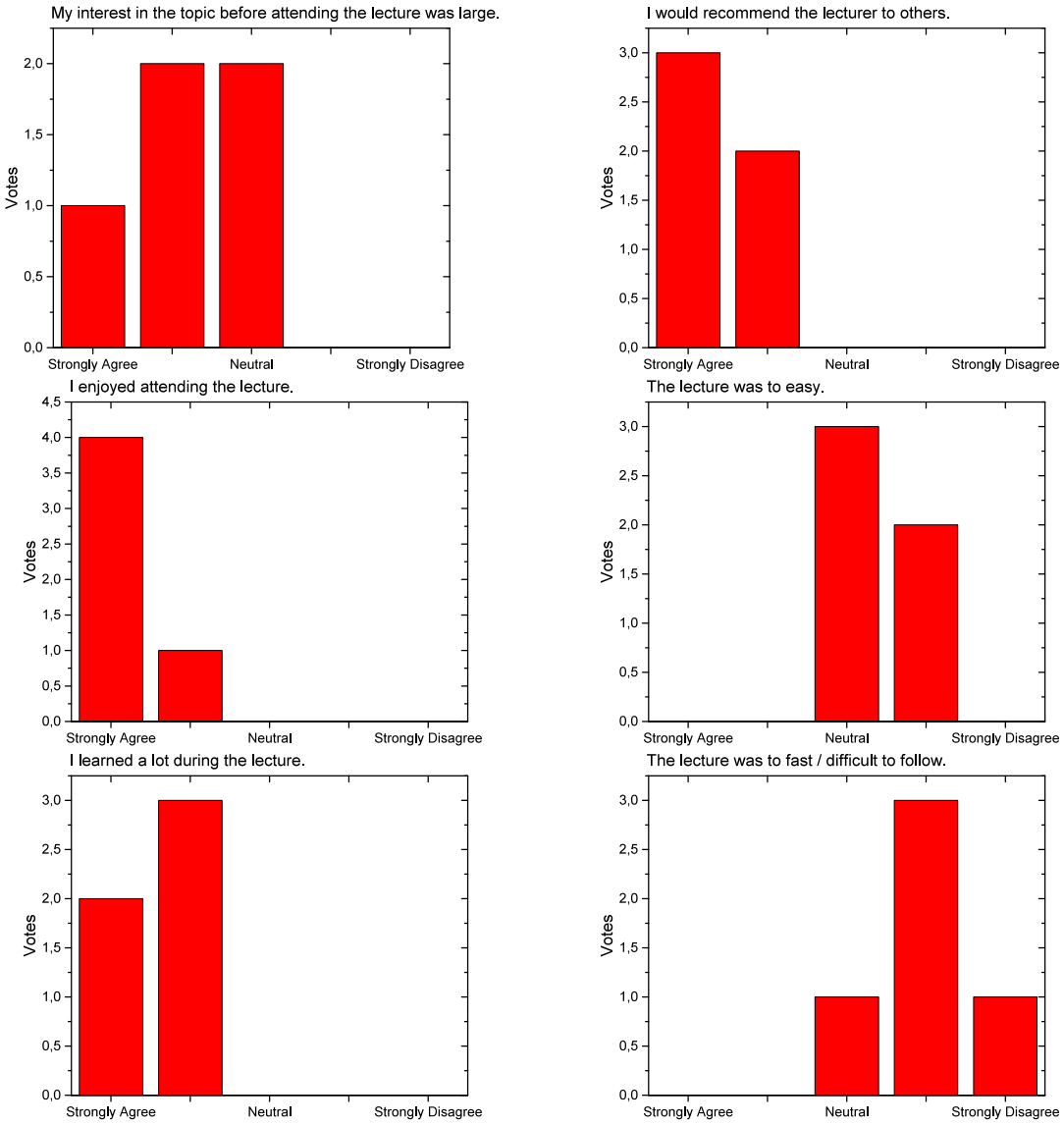


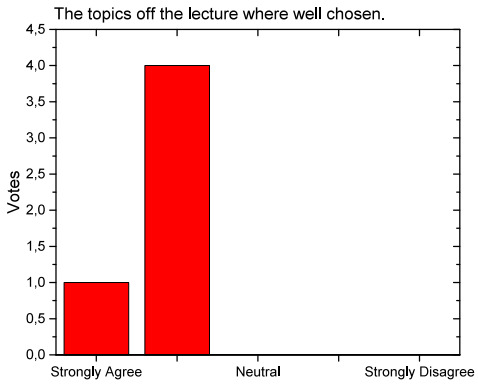


Comments

- First day was perfect second day a bit too fast

Niklaus Berger — As rare as it gets: Searching for charged lepton flavour violation

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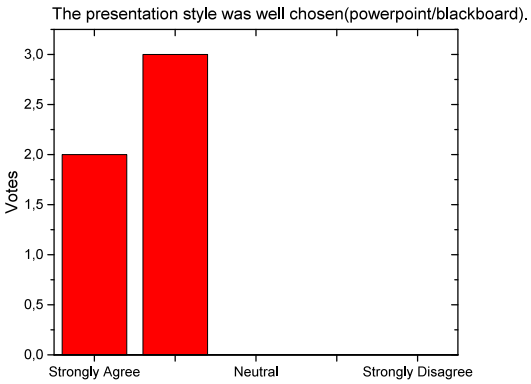
Votes
4,5
4,0
3,5
3,0
2,5
2,0
1,5
1,0
0,5
0,0
Strongly Agree
Neutral
Strongly Disagree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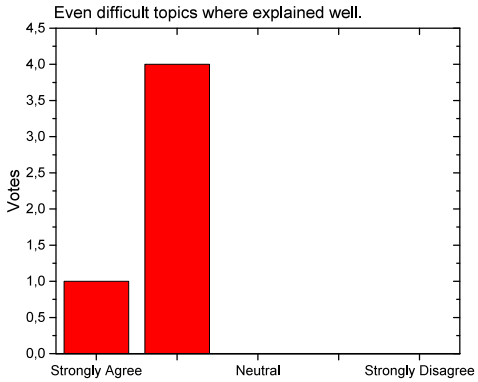
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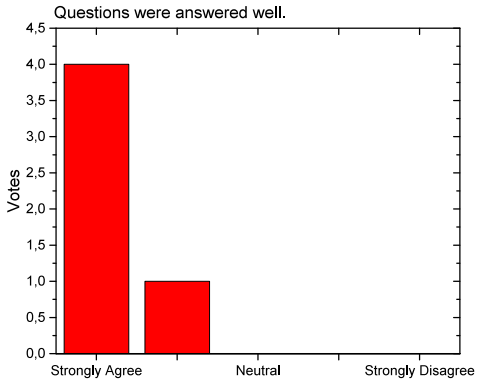
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Comments

-