
11th HGSFP Winter School

Obergurgl 2018

Final Report

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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 were able to replace all students that had to cancel on short notice by other applicants. Consequentially, all the reserved 58 beds in Obergurgl were 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 prize 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 were highly appreciated. Even though the University Center significantly increased its prices 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 year's 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 year's 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

B Evaluation

Time	Wednesday 16.01.	Thursday 17.01.	Friday 18.01.	Saturday 19.01.	Sunday 20.01.
07:30	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast
08:30 - 10:15	Arrival in Obergurgl GT	Strongly Coupled Systems and the Applied Physics of Black Holes C. Ewerz	Building Planets - A Journey along 40 Orders of Magnitude T. Birnstiel	Strongly Coupled Systems and the Applied Physics of Black Holes C. Ewerz	Radiation Biology: Physics at the Forefront of Cancer Therapy J. Seco
		High-Precision Tests of Quantum Electrodynamics - The g-Factor F. Köhler-Langes	Unlocking Changes in Ocean Dynamics F. Hensing	High-Precision Tests of Quantum Electrodynamics - The g-Factor F. Köhler-Langes	Prospects and Challenges of Quantum Computing M. Gärttner
		Josephson Junction Based Superconducting Electronics S. Kempf	Hot QCD Matter Produced in Ultra-Relativistic Heavy-Ion Collisions S. Masciocchi	Josephson Junction Based Superconducting Electronics S. Kempf	Galaxy Formation and Cosmology T. Buck
10:30 - 15:30		Break	Break	Break	Break
17:00 - 18:45	Dinner at 18:00	Building Planets - A Journey along 40 Orders of Magnitude T. Birnstiel	From Snow to Avalanches – A Journey through Scales and Phase Transitions A. Capelli	Radiation Biology: Physics at the Forefront of Cancer Therapy J. Seco	Departure
		Unlocking Changes in Ocean Dynamics F. Hensing		Prospects and Challenges of Quantum Computing M. Gärttner	
		Hot QCD Matter Produced in Ultra-Relativistic Heavy-Ion Collisions S. Masciocchi		Galaxy Formation and Cosmology T. Buck	
19:00		Dinner	Dinner	Dinner	
20:00 - open End	Social Event	Elevator Talks Poster Session	Elevator Talks Poster Session	Introduction to the HGSFP	