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### Blankfeld Fellowship Summer Report

This summer my travels to Israel were generously funded by the Blankfeld Fellowship from the Jewish Studies department at Rice. My project proposal was to investigate the Israeli University, campus life, and graduate studies in Israel. I had the specific intention of seeing if I would be interested in spending a year in Israel after my graduation in May. While in Israel I went to both the Technion and the Hebrew university, spending time with a professor, graduate students, and students at the Rothberg school. The outcome of the project was the opportunity for me to work with a physics group in Haifa for a year after my graduation.

I arrived in Israel in late May and was there for a week, spending half of my time in Haifa and the other half in Jerusalem. In Haifa I stayed in a backpacker's hostel, about a 30-minute bus ride from the Technion. Though I had been to Israel before, I had never been this far north, nor had I really explored an Israeli city other than Jerusalem. Immediately upon entering the city I noticed that the energy of the place was totally different than that of Jerusalem: Arabic and Hebrew restaurants were directly next to each other, there was no English on the street signs anywhere, and buildings looked significantly more lived-in than in Jerusalem. Haifa felt much more like a typical city with typical people living in it in contrast to Jerusalem, a city which to me has always felt like one big tourist destination, filled with tension, sparkling new buildings, and stuffed with people.

On my visit to the Technion, Haifa's low-key energy was prevalent on the campus. The campus consists of a number of unassuming buildings nestled into forests of wildflowers, pine trees, and rosemary bushes, giving no impression that the buildings house world-renowned experiments and researchers. I had set up a meeting with a physics professor named Yoav Sagi, whose work focuses on the use of ultra-cold atoms as simulators for the dynamics of atoms in solids, similar to that of my group's work here at Rice. This field of research is quickly growing as recent developments have allowed scientists to explore rich behaviors that are applicable in many other fields of physics, and Sagi and his group represent Israel's attempts to break into the experimental side of this field. In my conversation with him, one of the most remarkable

things was his access to funding. As a young professor with a small group, he has spent the last three to four years building his experiment. Because of Israel's investment in research programs, his graduate students are able to work at an accelerated pace, buying components they need to conduct experiments rather than trying to build things themselves, as is typical in the US. Sagi excitedly told me about all of his research ideas, projects he believes will soon be within reach once a few more aspects of the apparatus are completed. He also offered me a paid position in his group for the year after my graduation as an affiliated researcher.

After my meeting with Sagi, I also met with his three graduate students. The three students had done the majority of their work on building up the experiment, as is typical in young groups. Over a meal of shawarma pita in the cafeteria, the students spoke of familiar frustrations with the life of a graduate student, like experiments not working and long hours with little pay in comparison to equivalent positions. None of the students, however, had any worries about finding jobs after their graduate degrees. They said that the most appealing of possibilities is landing a job in the fast-growing tech industry in Tel Aviv, a sector always looking for highly-educated people with research backgrounds. Despite the potential for finding a job in Tel Aviv, all three students remarked that they did not want to leave Haifa. In comparison with Tel Aviv and Jerusalem, Haifa is relaxed, has access to all kinds of nature, and is devoid of much of the Israel-Arabic tensions familiar in the rest of the country. Ideal, then, is a high-paying tech job in Haifa, somewhat more difficult to find. In sum, I found the students to be extraordinarily bright and thoughtful. Their work represents the basis for an exciting development in Israel's entry into the ultra-cold atom community.

After my visit to Haifa, I visited friends studying abroad at the Hebrew University in Jerusalem. As a building, the Hebrew University is a stark contrast to the Technion, with large plazas and towers that can be seen throughout the city, all named after wealthy donors even foreigners recognize. The university as a concept has a sense of declaration that it is the flagship Israeli university. While there I spent a large amount of time with foreign-exchange students studying in Israel, exploring what life as an ex-pat in Israel is like. The most significant thing my time in Jerusalem revealed was the fact that every foreign student that comes to Israel does so for an explicit reason. In a country whose very right to exist is debated,

everything, from any affiliation to institutions in the area to simply existing in the region, carries with it some political implication. I sensed that as such a young country, Israel is still heavily influenced by young students that come to study there and eventually move there permanently. The students wrestled with questions of a Jewish identity and how they can assimilate or even simply take part in the dynamics of the country they are in. At the same time, the country's familiarity with immigrants allowed these students, even those who did not look "Israeli" or spoke fluent Hebrew, to live in Jerusalem with remarkable ease.

My experience in Israel this summer left me excited about the possibility of spending time doing research in Israel, specifically at the Technion in Haifa. Though I had fallen in love with Jerusalem before, this summer I was exposed to Israel's multifaceted geography and cities, learning about sides of this fascinating country I had never heard of. As I decide how to spend the time after my graduation, I am glad to have the option of spending a year in Haifa, doing research alongside world-class researchers in an exciting field. Israel specifically is an exciting place to be a researcher, as recent investments in research mean that scientists can take large steps forward as they catch up to more established groups in Europe and the US. In Jerusalem I learned about living in Israel as a foreigner, an experience which would be dynamic and fascinating, bringing its own challenges and barriers as well as opportunities to grow as an individual.



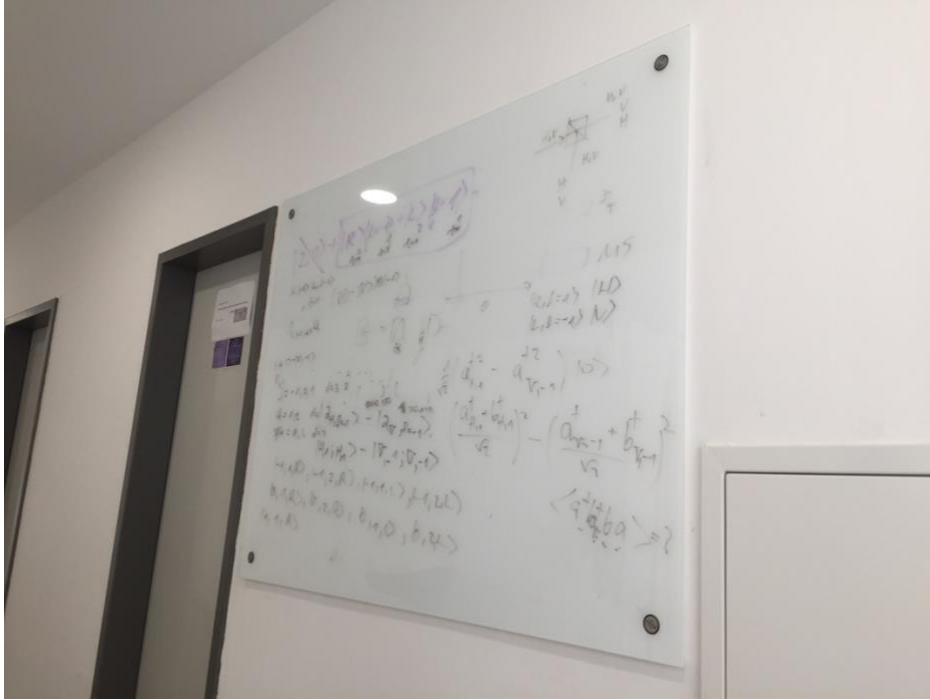
The campus of the Technion.



Walking through rosemary bushes and overgrowth on the Technion campus.



The entrance to the physics building.



Familiar scripts and notation make the physics building feel like home, even in a place with a different language and alphabet!



The Baha'i Gardens in Haifa. The slope of the mountain ending at a pristine beach is the city's defining physical characteristic.



Me, enjoying a pita shawarma in front of the Western Wall.



Me, excited about the Hebrew University campus despite the unrelenting Israeli sun.