

## Personal Statement

### 2015, Natural Sciences (Physics), Trinity College

I discovered my passion for science and mathematics early on in school, which is why I decided to attend a class specialised in maths and also took on extra physics lessons. I like physics because it combines the pure beauty of maths with the real phenomena of the world, thus giving a deeper meaning to the equations. I also find it interesting that problems from different areas of physics lead to similar mathematical equations and how physics uses the results of maths to describe the phenomena of life. To mention one example, I was intrigued by the fact that complex numbers are very useful in describing electrical circuits.

Over the course of my education I achieved outstanding results in various international and national competitions. My greatest successes were silver medals from the International Physics Olympiad (IPhO) in 2014, the European Union Science Olympiad (EUSO) 2014, and the International Junior Science Olympiad (IJSO) in 2011 and 2012. I also took part in national competitions of Hungary. In physics I was in the final round of the national Olympiad (OKTV) in 2014, although I could not participate in the final round because it was at the same time as the EUSO. In 2013, I came second at the national 'Mikola Sándor' physics competition. In chemistry I was in the top ten at the national Olympiad (OKTV) in 2014 and at the national 'Irinyi János' chemistry competition I achieved second place both in 2013 and 2012. In maths I was in the top 15 at the national Olympiad (OKTV) and regularly send in the problems for the correspondence competition organised by KöMaL (Mathematical and Physical Journal for Secondary Schools). I also achieved honourable mentions at the national Eötvös physics competition both in 2013 and 2012, of which I am especially proud given that it is open to first year undergraduate students as well. These achievements would not have been without my teachers who encouraged and helped me a lot.

Preparing for the competitions, I got to immerse myself fully in the subjects, which proved very useful later on. I also had the opportunity to do various experiments and measurements in laboratories, such as the experimental problem of the Romanian-Hungarian Physics Pre-Olympiad where we had to measure the refraction coefficient of a Plexiglas cube with a diffraction grating inside where the spacing was unknown. I experienced how important it is to choose a good experimental method because although in theory everything is precise, during a measurement the small uncertainty range can be of crucial importance. Competitions also provided other benefits, as I got to meet people interested in the same areas of science and talk with them as friends. At EUSO and IJSO got a taste of working in an interdisciplinary team with people from different areas of science, like physics, biology and chemistry.

I often take part in extracurricular activities including maths and chemistry camps and preparation courses for the Olympiads. I like these activities because I can focus on puzzling problems and get to spend longer periods on solving an interesting problem.

For 8 years, I have done caving and judo, in which I achieved the orange belt. I am also an avid motorsport fan and in my free time regularly watch WTCC (World Touring Car Championship) and Formula 1; with the help of a simulator program I also drive such cars.

Putting together a car involves lots of problems related to physics, where each small modification can have significant effects. Since the BTCC is a very prestigious championship and many F-1 teams have their bases in the UK, it would be a dream come true if I got the opportunity work on the development of a racing car during my studies there.

I am enthusiastic about the prospect of continuing my studies in the intellectually challenging environment of a leading UK university, as I believe that like-minded students, excellent facilities and world class lecturers are essential to reaching one's potential.