

# Personal Statement

## 2008, Natural Sciences (Physics), Pembroke College

I have always had a strong desire to understand the world surrounding me. It was this wish to know more that prompted me to read the book "Quarks: The Stuff of Matter" by Harald Fritzsch in the 8<sup>th</sup> class and later ones by Richard Feynman. Fritzsch's book granted me a glimpse of the world of intense scientific research. The idea of discovering fundamental properties of nature motivates me to become a physicist while Mr Feynman's example of openness to ideas throughout his life inspires me to do so with a critical, but open mind.

I have pursued physics both in and out of school. I attend Hungary's special school for mathematics where I have 7 maths classes per week. I also take part in many competitions. In the past three years I have been in the top 30 nineteen times in nationwide competitions in physics, chemistry and maths. The highlights of these are 9<sup>th</sup> place at the selection competition for the International Chemistry Olympiad, 1<sup>st</sup> place in two theoretical physics competition, 2<sup>nd</sup> place at the national experimental physics competition, and a bronze medal at the International Physics Olympiad in Vietnam. As part of this experience, I have attended preparation courses at the university for those in the final rounds.

Throughout my high school years I have worked on several projects. Every year there is a competition for students to create a digital work that can be uploaded to the Internet. I have entered this competition four times – three times with summaries of the physics curriculum and once with a web page of presentations I had created. In the last one I created elaborate animations of the effects of geophysics concepts in flash. All four times my team won first prize. I have also created a real-time 3D simulation written in Blitz3D of motion and interaction of spherical charged particles of finite size.

Outside my academic life, I play sports and took part in competitions from athletics and pentathlon to basketball. Now I only do sports casually but enjoy cycling, long distance running and basketball.

Recently, I have gone on several bicycle tours ranging from 50 to 500 kilometres.

Although Cambridge is far from Hungary, I have been there twice. In 2004, I took part in the First Lego League competition as a member of the Hungarian team. At that time, we had the opportunity to tour an engineering lab and meet with researchers in experimental psychology. Inspired by the atmosphere, I returned this past January to learn about the colleges and decide whether it was the right place for me to study.

I liked the challenging environment. I thrive in competitive atmospheres and think that Cambridge would help me strive to reach my potential through being around the best students. I also liked the opportunity to work on problems with fellow students in supervision groups. When visiting, I saw third year students presenting their research to each other and sharing ideas. Not least, I would like to continue to work on projects, both official ones like the dissertation and ones with colleagues from college. It is an important way of gaining knowledge on topics which are not included in the syllabus and provides valuable work experience.

Deciding whether to apply to Math or Natural Science was not easy. I chose natural sciences because I am interested in mathematics and physics as well as in chemistry. I would like to have a chance to explore them all at a higher level before choosing my area of specialty. When discussing these issues with Gabor Csanyi, a Hungarian fellow of Pembroke College, he suggested Pembroke as it has high academic standards and is especially good in mathematics, an important part of physics. After our discussion I went to visit the college itself and found its atmosphere to be welcoming and to suit me well. Being hard working and deeply interested in science I, think I am as well suited for Pembroke as the college is for me and will help me realize my goal to become a theoretical physicist.