6th Form Physics visit to CERN

On 24th February, 31 adventurous A Level physicists travelled 445 miles across Europe to Geneva, Switzerland. Day one started very much bright and early, with a 3:00am meeting time for a 7:25am flight! Our first visit was to the International Red Cross Museum, which promotes the history, current affairs and challenges of humanitarian action around the world. We were able to appreciate this through an audio guided tour of the varying exhibitions and events within the museum.

A short walk down the road, we then arrived outside the original site of the United Nations, made clear by the 193 flags of the UN member states at its entrance. Just opposite the UN also stood the iconic 'broken chair' sculpture, acting as a symbol of peace through opposition to land mines and cluster bombs.

From this point, we utilised the efficient Genevan tram system to return to the hostel, where we rested before taking a beautifully scenic evening walk along Lake Geneva. After everyone split off for dinner, we arrived back at the hostel overcome by fatigue from our exciting day of travelling and sightseeing. Of course, we could never be too tired, however, to partake in a physics quiz hosted by Ms Valente! To be fair, it was helpful preparation for our second day and we all found our second wind as our inner competitive edges emerged.

Day two featured the main event: a tour of CERN, the worlds most advanced and expansive particle physics experiment, arguably the largest scientific experiment ever. Composed of arrays of particle accelerators and detectors in a ring 27km in diameter 100m underground, spanning across Switzerland and France (!), experiments at CERN help explain the fundamental nature of the universe.

This proved to be a rich educational and cultural programme. We had the opportunity to visit aspects of the Large Hadron Collider (the most powerful particle accelerator), where we learned how various aspects functioned. Inside the accelerator, two high-energy particle beams travel at close to the speed of light before they are made to collide. These projects are a product of the collaboration of thousands of scientists from around the world and our tour allowed us to experience the innovation and thought behind their work. We were particularly intrigued at the different technological advancements humankind has made thanks to CERN, such as the World Wide Web

itself that you are reading this article on! Finally, after the crucial gift shop visit we were taken to the globe of science and innovation to experience the ‘universe of particles’ exhibition. This was where we learnt more about particle physics, the big bang and other contemporary physics being unravelled at CERN. It was all an incredible experience and a big thank you to Mr Le, Mrs Valente and Mr Carter for taking us!

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