

Tessa Chiara Basso

➤ EDUCATION

- 02/2017 – present **Politecnico di Torino** Turin ITALY
PhD in Aerospace Engineering as a Marie-Curie Fellow
- Participation in the Innovative Training Network Cloud-MicroPhysics-Turbulence-Telemetry
 - Conceive, design, prototype test and optimise a new kind of processor embedded, ultralight, biodegradable radio probes capable of floating in stratocumuli cloud altitude
 - Aim to generate a Lagrangian database for pressure, temperature, humidity, aerosol concentration, velocity and acceleration fluctuations inside warm clouds
- 2011 – 2016 **University of Bath** Bath UK
MSci Natural Sciences (Hons) with Professional Placement in 3rd year
- Degree Classification: Second-Class Honours First Division
 - Physics: Quantum, Condensed Matter, Electromagnetism, Thermal, Laser, Medical
 - Chemistry: Thermodynamics, Structural Methods, Electrochemistry, s/p/d/f-block, radio
 - Master's project: Decoration and intercalation of 2D transition metal dichalcogenides
 - Awards: – The Bath Award for personal development and contribution to university
– American Alumni Foundation Award for best final year research project
– Best placement poster in the Natural Sciences department
- 2005 – 2011 **European School of Brussels II** Brussels BELGIUM
European Baccalaureate Diploma
- Overall grade 88.04%

➤ WORK EXPERIENCE

- 06/2015 – 08/2015 **European Organisation for Nuclear Research (CERN)** Geneva SWITZERLAND
Intern
- Investigation of a possible cleaning procedure of Non-Evaporable Getter (NEG) surfaces after hydrocarbon contamination with X-Ray Photoemission Spectroscopy (XPS)
 - Evaluation of the Secondary Electron Yield of NEG as a function of the contamination produced by a simulated air leak contributing to VELO detector of LHCb
 - Measuring sulphur segregation from Oxygen-Free Electrolytic copper by Auger spectroscopy
- Understanding aspects of on-going projects and conducting three parallel projects demonstrated my ability to multitask, to be focused and organised.
- 07/2013 – 08/2014 **European Organisation for Nuclear Research (CERN)** Geneva SWITZERLAND
Technical Student
- Characterisation and optimisation of magnetron-sputtered amorphous carbon thin films for high-energy particle accelerators
 - Achievements: successfully collaborated with the Surfaces, Chemistry and Coatings section lead by M. Taborelli and contributed to a paper exploring the implementation of Carbon thin film coatings in the Super Proton Synchrotron (SPS) for Electron Cloud Mitigation published in Proceedings of IPAC2014.
- Demonstrated my self-teaching and time management abilities, as I was solely responsible for a project. Taught me to be professional and communicate effectively with colleagues.
- 07/2012 – 08/2012 **Shecco** Brussels BELGIUM
Marketing and Communications assistant
- Laying the foundations of a Customer Relationship Management program
 - Helping with tasks such as transcription and editing of interviews, uploading content onto B2B online platforms and researching information on various companies
- I was handling sensitive information requiring integrity and discretion whilst presenting the benefits of the programme to the rest of the team.

2010 – 2011 **Sportcity Swimming Pool**

Swimming Coach

- *Teaching 7 - 12 year olds advanced swimming techniques for competitions twice a week*
 - *Teaching 3 - 5 year olds to gain confidence in water and learn the basics of swimming*
- Taught me patience and have encouraged me to be creative in ways of breaking down concepts or techniques to make them easily understood and put into practice.

Brussels
BELGIUM

➤ **VOLUNTARY WORK**

09/2015 – **University of Bath**

06/2016 **Academic representative**

- *Acting as a liaison between staff members and students*
 - *Presenting issues raised by students*
 - *Drafting proposal to restructure Master's Year and presenting it to board members*
- Improved my written and verbal communication to present the views of my peers to the board constructively. Took part in decisions regarding the program for all years.

Bath
UK

07/2012 – **St John Ambulance Avon Unit**

06/2013 **Vice chair and Head of Operations**

- *Organizing first aid cover for events, e.g. Bath Half Marathon*
 - *Going out on duty as a first aider*
 - *Organising training sessions for the student society*
- Essential first aiding skills. Made me confident and able to handle stressful situations. Improved my leadership skills and my ability to collaborate with unit members.

Bath
UK

2010 – 2011 **European School of Brussels II**

Student Body Member

- *Student counsellor and secretary to the Student Body President*

Brussels
BELGIUM

➤ **OTHER SKILLS**

Languages

French : *Native* Italian : *Proficient*
English : *Native* Dutch : *Basic*

Technical skills

IT : *Proficient in Windows, Mac OSX, Microsoft Suite, LaTeX, Labview*
Laboratory : *Proficient in Ultra-High Vacuum (UHV) systems, Magnetron-Sputtering, Residual Gas Analyser (RGA), Secondary Electron Yield (SEY), Electron Stimulated Desorption (ESD) and Outgassing measurements. Basic skills in Optical Microscope, Scanning Tunnelling Microscopy (STM), X-Ray Photoemission (XPS)/Auger/Raman Spectroscopy.*

➤ **INTERESTS AND ACTIVITIES**

- I was a competitive swimmer for over 11 years and won the Fair Play award in 2007. I was also captain of the European Swim Team (2009-2010).
- I was part of a national team participating in international competitions such as the Belgian and European Forces Championships and hence travelled and met people from all around Europe.
- I did a student exchange in 2010 at the Shanghai Experimental School in China where I lived with a Chinese family.
- I participated in the organisation of World Youth Day in Madrid in 2011 where I helped prepare for events during which I worked various jobs (from being an interpreter to supervising the crowd). then
- I play piano and used to horse ride to a competitive level for 3 years.
- I was a member of the swimming, badminton, LINKS (St John ambulance unit), Natural sciences and TedxBath societies at my university and took part in weekly meetings as well as socials.
- I was part of a Girl Scout division in New York for 5 years.