Statement of Purpose

My name is Víctor Ballester, and I am currently enrolled in the M2 Applied and Theoretical Mathematics program at Paris-Dauphine University, following my graduation from Mathematics at the Autonomous University of Barcelona (UAB) in july 2023. For years, I have been highly attracted to Mathematical Sciences, particularly in applied Mathematics and Physics. I consider myself a determined and hard-working individual. These qualities, together with the friendships I have made over the years, have empowered me to become better in various aspects of my life, especially in Mathematics.

During high school, Mathematics was undeniably my favourite subject. I showed a keen interest in the topic, often completing exercises and exams faster than my classmates. Thus, my decision to pursue Mathematics at the university level was clear. During my first year at UAB, I found myself surrounded by individuals who shared similar interests, which greatly enriched the learning environment. As my studies progressed, my proficiency in Mathematics increased. I completed my undergraduate studies with an average mark of 9.42, earning honours in 186 out of 240 credits. In particular, my final bachelor project, which explored the dynamics of Earth-orbiting spacecraft, earned a perfect score of 10.0/10.0. Shortly after completing my undergraduate studies, I was honoured with the Extraordinary Award of the Faculty of Sciences at UAB, acknowledging me as the top student in my graduating class.

Last September was the beginning of my new journey in Paris. I was awarded a fellowship from the Paris Graduate School of Mathematical Sciences to pursue advanced studies at Paris-Dauphine University. The high level of exigency in France, and particularly at Paris-Dauphine University, together with my competitive spirit and my talented classmates, is continuously encouraging me to excel in any subfield of Mathematics. At Paris-Dauphine, I am specializing in computational fluid dynamics, with my master's thesis focused on the transition from 2D to 3D turbulence.

My next purpose is to pursue a PhD in Applied Mathematics, specializing in computational fluid dynamics, with the ultimate goal of becoming an aerodynamicist in the Motorsports industry, a dream I have always had. Currently, I am applying to several universities in Austria and the UK, and I am confident that I will be admitted to one of them. The Institute of Science and Technology in Austria stands as one of Europe's best research centres, renowned for its expertise in fluid dynamics. Similarly, I have applied to the University of Manchester and the Imperial College of London, both distinguished institutions in the field of applied Mathematical Sciences. Furthermore, the UK's reputation as a leader in Motorsports makes it an ideal destination for furthering my studies.

In essence, my decision to apply to institutions in both Austria and the UK reflects my desire to engage in cutting-edge research, collaborate with bright scholars, and immerse myself in vibrant academic communities.

Beyond my academic pursuits, I have actively participated in Mathematics competitions, achieving notable success. Most recently, I ranked as the second-best Spanish individual in the west division of the Simon Marais Mathematics Competition. Additionally, I have spent years providing private tutoring to high school students, acquiring essential skills such as empathy, patience, and communication skills.

On balance, my academic background positions me well to pursue doctoral studies abroad. The granting of this fellowship would allow me to continue expanding my knowledge of Mathematics at a prestigious university.