

Final report

Internship abroad

Personal data and general information on the internship

Subject of studies: MSc Physics with a Specialization in Medical Physics

Bachelor/Master/State exam: Master

Time of internship: 15.12.2025 – 14.04.2026

Place of internship: Valencia, Spain

Internship institution: Instituto de Fisica Corpuscular

Guidelines:

- The report should have a length of at least **4 DIN A4 pages** (Times New Roman, 12pt, 1.5 line spacing)
- If you want to give names, please do not give the full name of the person. Use only the first name or abbreviations such as "L.".
- When integrating photos, please note that your report requires the consent of the person(s) photographed when published and distributed.
- Please save your report as a word document (max. file size: 8 MB) and upload it to MoveON.
- If you are looking for a little inspiration for your own report or would like to compare your experiences with those of other students, please feel free to have a look at our [website](#).

You may structure your report as follows:

1. Planning and preparation (e.g. application process, finding accommodation, language course)
2. Internship (tasks, typical workday, workload)
3. Social contacts
4. Everyday life and leisure
5. Financing (cost of living, shopping tips, relevance of the Grant)
6. Internship and studies (Were you able to apply what you learned during your studies, how has the internship changed your motivation to study and/or your attitude towards your future profession)
7. Conclusion (were your expectations met, challenges, particularly defining experiences, tips for future interns)

1. Planning and preparation

My project at the Instituto de Fisica Corpuscular (IFIC) in Valencia, Spain was the final of three consecutive projects I did there within the Erasmus+ traineeship program. The projects were designed as a collaboration between the Chair of Medical Physics at LMU Munich and the IRIS research group in Valencia to establish stronger international connections between the LMU and IFIC, and to merge knowledge and expertise on detector development for medical gamma-imaging. The planning stage took place mostly before the first of the three projects and continued naturally thereafter. As a master student of physics at LMU, I was required to do a year-long research phase that concludes with the submission of a master's thesis. I turned to my Chair at LMU to discuss the opportunities to do that research phase as a collaboration from South Europe. Luckily, the collaboration was agreed upon by the principal investigators at both sides, and I received an invitation to join the team in Valencia.

For my funding, I attended a scheduled event at the Faculty of Physics at LMU that presents all opportunities for funding abroad. With representatives from all relevant offices present in the same room, it was easy to identify the best funding framework that matches our collaboration as the Erasmus+ traineeship program. I received funding for the duration of my research phase, which did not cover all my expenses, but helped me significantly.

Regarding accommodation, students in Spain live either in more expensive student residences with more services included, or in cheaper rooms in shared flats. Such rooms can be found on online platforms, similar to the German WG-gesucht. I found my room on idealista.com. The different platforms have different rules, and certain platforms are more popular with Erasmus students. I decided to stay at a hostel in Valencia for two weeks and go to viewings in person to avoid any unpleasant surprises. The room I lived in was in El Carmen in the city center and cost me 470 Euros (later increased to 490 Euros), which includes a monthly amount of 50 Euros for bills. This price is slightly above the market average, and I recommend that students do their research on the market to avoid speculation.

In the early days of my project, I spent a significant amount of time to deal with Spanish bureaucracy, as I wished to do all of my documents properly, and get an Empadronamiento (municipality registration), green NIE (residence permit, with an identification number used for various administrative purposes), Tarjeta SIP (inclusion into the healthcare system on virtue of the European health insurance card (EHIC)), Mobilis30 (discounted public transport card), and Tarjeta Esportiva (sports card for the University of Valencia sport services). The bureaucracy involved was complicated, heavy and inconsistent. With the benefit of the hindsight, I recommend students to only obtain the documents that they really

need and look for shortcuts (some students recommend the issue of a Spanish Youth Card as an easier way to qualify for the Mobilis30 card). I used a Spanish pre-paid SIM card from MASMOVIL, which is best done in presence, in one of the many locutorio shops.

2. Internship and studies

My internship at the Instituto de Fisica Corpuscular (IFIC) consisted of three research stages, covering the standard steps in detector research and development, from initial system setup, through the identification of the physical properties of the detector of highest relevance for its use in medical imaging systems, the study of these properties, and finally the investigation into its potential applications and future research.

My working hours were relatively flexible and allowed for the completion of other LMU-related tasks. I was working in presence from the research group office and lab in Burjassot, on the outskirts of Valencia. I reached it every day by a relatively reliable tram connection from the city center. My research group was separated from the main IFIC building, in a Parc Cientific office building, which made integration with the other IFIC students and members more difficult. We had lunch together as a group, typically at the University of Valencia (UV-ETSE) canteen nearby, or at the IFIC canteen, with prices ranging from approx. 5 Euro for a two-course meal, to approx. 8 Euro for a three-course meal. Many people chose to bring food from home. My work was split between a laboratory and an office. The data taking happened in a laboratory that contains all relevant electronics and the radioactive, yet safety regulated, sources. The data processing was done from a shared office.

The research group had a lot of experience in their niche – detectors for medical imaging, in particular Compton cameras. These devices detect energetic photons and try to reconstruct their origin without using the heavy mechanical shapers that are typical for current clinical imagers. My project was designed to bridge their knowledge on such detecting systems and the aim of the LMU Chair of Medical Physics to use them to verify heavy charged particle therapies for cancer. The project increased my understanding of detector physics and how it is relevant for medical physics in general. I saw applications of the theoretical content learnt at LMU and gained practical experience of how experimental physics laboratories work. My project was largely independent and taught me time management and self-regulation. I was also able to compare the advantages and disadvantages of both the German and the Spanish organizational style.

3. Social contacts, everyday life and leisure

The social life of Erasmus students in Valencia is organized mainly through Instagram posts and Whatsapp groups. I signed up with the Erasmus Student Network (ESN) branch at the University of Valencia (UV), whose events are organized jointly with the ESN of UPV. The ESN membership can be also used for discounts with Ryanair, in particular for free luggage. The ESN events are announced on Instagram, and one must be aware of last-minute changes and cancellations, which become clear through Instagram stories on the week of the event. The events are positive, with a large turnover of people, especially at the beginning of the semester. This is probably the best opportunity to meet people in the same social situation. The social life in Valencia happens in many bars, open-air terraces, and clubs. The atmosphere is very spontaneous and friendly but might not necessarily lead to commitment. There is a strong emphasis on living in the moment, as opposed to planning.

Valencia benefits from a nice beach in the city and even better beaches directly south of it. The sea water temperature remains warm until October. With my Tarjeta Esportiva I signed up for a 4-session surfing course, and a multiple session windsurfing course. The surfing course was provided by Surf Las Arenas and can also be accessed privately (without the university discount). The course was entry level, and I was very satisfied with it. The windsurfing course was provided by the university and most of the sessions were cancelled at the last minute. It might be worth checking other private providers. To practice sports in the winter I also signed up with a gym. I recommend checking multiple providers as they frequently offer discounts, especially on the signing up fee.

Another way to socialize was through a language course. I took Spanish for beginners, offered by the University of Valencia language center. The course was good and conducted entirely in easy Spanish, which is a good language immersion. The regulations for the discounted price for Erasmus students are not clear, and I needed to fight my way to get the discount. I deliberately chose an A1 course, so that it does not take much preparation outside of the classes, but I think for people with some basic knowledge, or with more free time to prepare, A2 might also be a good starting point. Speaking at least a basic level of Spanish is very necessary for life in Valencia, as although people are very patient, they can frequently express themselves only in Spanish.

Another opportunity to socialize was through my colleagues from the research group who sometimes meet to play volleyball, or for Almuerzo – a long brunch typical for Valencia that easily extends into the afternoon. Other than that, I am aware of multiple expat groups on social media, which might provide another opportunity for socialization.

The final third part of my project coincided with Fallas, the famous Valencian festival of fire. It covers almost a month from the end of February to the middle of March, and involves multiple nightly fireworks shows, daily firework shows (for the sound effects), the building of giant temporary statues, and finally their burning. I was very happy that I had the opportunity to experience it while living in Valencia.

4. Financing

My finance was provided through the Erasmus funding, the additional funding for the support of equal opportunities for the first two parts of my project and further supported by my parents. I am not entitled to Auslandsbafög, but it is also worth considering for German citizens (or EU-citizens with a 12h-weekly work contract). I recommend assigning a budget similar to the one students have in Munich, excluding accommodation. Supermarkets cost the same, if not a bit more expensive than the German ones, and the culture involves a lot more restaurant- and bar- going than the German one. The restaurants and bars are about 1/3 cheaper than the German ones, yet the frequent visits add up.

5. Conclusion

The three parts of my project presented a valuable opportunity to see how both my personal integration and my research project advanced with time. I felt more settled and aware of my surroundings. I could use the time to advance my studies and my project and learn meaningful things about my field of study, that is medical physics. I had the time to explore the job opportunities in front of me and start thinking about the end of my master's studies. I also managed to take some glimpses into the typical Erasmus experience that many people have in Valencia. This helped me improve my social skills and relate to people with communication styles different from my own, yet full of good intentions. I am happy that I completed and submitted my master's thesis and had the opportunity to think about what I expect from the future after the end of my master studies. I will try to find a way to combine the German work efficiency with the Spanish love for life in the moment and establish a good work-life balance. This might be the most important lesson I learned from this Erasmus experience

I'm grateful for the Erasmus funding that gave me the opportunity to collect all of these experiences and grow as a scientist and as a person.