

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: 15.04.2025 – 14.08.2025

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)
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

I believe that in their early 20s people should discover or even invent themselves and for that purpose should try as many things as possible. My Master's degree in Physics with a Specialization in Medical Physics at the LMU is structured as 60 ECTS from courses and seminars, and 60 ECTS from practical work and the master's thesis, which allows students to do the second half of the degree at various institutions, including ones abroad. Since I wanted to try out life in South Europe, I spoke to my supervisors at the LMU, who suggested a suitable research direction and a number of collaborators in Italy, Spain and Portugal. I chose the Institute of Particle Physics (IFIC) in Valencia, Spain, based on the country's famously good lifestyle and very liberal and open-minded approach to life, Valencia's manageable cost of living, the accessibility of the traineeship institution by public transport, Spain's currently expanding job market in Medical Physics (with the building of 10 new proton centers), and last but not least, the proximity to the beach. The communication between the LMU and the IFIC was quick, my application was accepted, and the IFIC team further connected me with a well-priced insurance provider in Spain.

Finding accommodation is best done when physically present in Valencia, so I booked myself a 2-week stay at a hostel and sent my luggage in boxes with the dpd international. There are university-owned as well as private student residences, but they are rather pricey and resemble a hotel, probably best suited for less independent students. Instead, I used Facebook groups, as well as Idealista to find a room in a shared flat. Right now (April - August 2025), the market is very volatile, and one can find rooms for as cheap as 350 Euro, or as expensive as 700 Euro, bills included. To be better aware of the acceptable price ranges than I was, it is probably worth looking at listings in advance from Germany. I found a spacious room in a shared 3-person flat in El Carmen, slightly overpriced at 470 Euro (50 Euro worth of bills included). With the benefits of hindsight, I could have saved myself a bit of money and noise at night if I stayed outside of the city center, and should have looked for a place with air conditioning as the summers do get very humid and hot.

When signing a contract, it is very important to ask whether you can do "Empadronamiento" (registration in the municipality), as many places do not provide this "extra", including mine despite promises. The "Empadronamiento" is important for getting a temporary residence permit ("green NIE"), which in turn is used for many administrative services. The administrative procedures in Spain are annoying to say the least, as although they seemingly involve less steps than the German ones, there is a huge potential for things to go wrong. For example, I ordered a SIM card online, using my passport number as their own

website suggested, yet it never came, and after a whole morning of effort on behalf of my Spanish-speaking colleagues, it turned out that they took my money without ever intending to send one, since despite what is written, they don't accept passport numbers. To avoid that, you can go to one or more "locutorios", see what SIM cards are available there, purchase and activate it on the spot, which I did eventually. This is part of a broader advice that if you want to get anything done, you should aim to do it right then at the spot, as in Spain the future very often means never.

It is also a great challenge to book an appointment with the police for the issue of a "green NIE", as they operate an appointment-only service that is always booked out with no information whatsoever when new appointments will become available. You can either scout Reddit (or ask at the police station) for the possible day of the week when they release the new appointments, click very fast, and use a Spanish phone number (not sure if it works with foreign ones), or even buy an appointment at the black market – yes, that exists. If you get that appointment, you must present several documents, including the document with the paid government fee, which is another instance of mission impossible, as it involves using a cash machine that requires the precise governmental number you are applying for and still do not have (although, I hear, you can put in 999999999 instead), or try to pay in cash, which happens at some very specific bank branches on some very specific days at some very specific times. All in all, the system is not well thought through and makes you stumble at each of its seemingly few steps. After I got the "green NIE" in the end, I used it for the issue of my Valencia transportation card (Mobilis30), my university sports card (which was another 2-month hurdle), and the governmental summer transportation discount (Verano Joven) that gives 90% off on buses. With the "green NIE" the IFIC could also set me up with an electronic signature that makes access to administrative appointments easier.

You can probably avoid all that altogether if you are staying for less than three months and/or don't intend to use government services and discounts.

2. Internship and studies

The IFIC research group welcomed me cordially, gave me access to the laboratory where I did my project, and provided me with their contacts in case I need help. As with any research project, I spent the first weeks reading up. It is interesting to note that when a research group has done one thing for a long period of time, they start assuming that the details of it are common knowledge. I learned to be more confident with the knowledge I currently have and not be ashamed to ask questions even when I got told that they teach that content here in their

courses. I applied many of the concepts I learned thanks to the broader LMU teaching scope and significantly improved my experimental understanding of theoretical matter. My tasks included experimental as well as computational work in-presence in the laboratory that I did mostly independently. I was in weekly contact with my supervisor to discuss my tasks and their timely management and received very high-quality advice regarding physics. Since there was not a specific time schedule, I was also in contact with my LMU supervisor to make sure that things are going sufficiently well in time. An interesting thing that I noticed at my workplace is that while in Germany high value is placed on punctuality, precise, direct and clear communication, in Spain, the focus seems to be shifted away from those and towards social harmony and personal feelings.

Regarding my professional career path, I finally had some time to think about and research it, including the two most prominent options – clinical jobs and academia. I discovered that despite Europe-wide harmonization efforts, the clinical jobs in Medical Physics are still individually regulated by the laws of the respective state. Nevertheless, the LMU Medical Physics courses and my current research project in Valencia are quite suitable for the different jurisdictions, with the addition of a further exam in Radiation Protection, and despite the lack of training in Anatomy and Physiology. This situation is apparently common for people with a strong physics background and my application for entry-level clinical jobs will still be strong. Overall, I can now say that I am very happy with the choice of LMU as my master's degree destination, as it both managed to give me closure from my bachelor's degree thanks to the general physics courses, as well as provide me with specialized training thanks to the Medical-Physics-specific courses. The internship in Valencia gave me a very valuable insight into the research world (of yet another country), showed me that the academic funding is unpredictable everywhere, which leads to academics having unstable jobs, and gave me the chance to actually do research myself. I do like science very much, so it was wonderful and much appreciated to do it once in my life, however, due to the job conditions that I mentioned, I would prefer to check this experience off my list and look for a clinical job after graduation.

3. Social contacts, everyday life and leisure

The social climate of Spain is different to the one in Germany. They are quite open to interaction with strangers and not so afraid to share their contacts. Nevertheless, this is not the end of the story, as more often than not, they choose to ghost people after that. There is a general and very sensible friendliness, but one should not be tricked into confusing it for

friendship. In general, it is apparently also very important to speak Spanish, as it is unfathomable to many Spaniards that international people can communicate in a language that is foreign to one or both of them. Additionally, Spain also has several local languages, which people are very proud of, and feel deeply offended if you ever decide to discuss the practical issues that come with them.

My more successful social interactions have been with my colleagues from the research group, and we have been to the pub as well as at Almuerzo, which is the local version of brunch. A central component of each workday is the lunch break, which happens at a different time each day, and follows an intricate ritual of repeatedly standing up and sitting down at the desks until everyone is ready. I have been told that in this way it is much more relaxing. Besides the work colleagues, another possible way to socialize is through housemates, which is of course a hit-or-miss scenario. I was very lucky to have an Italian housemate that I liked very much after a succession of short-lived Latin American housemates, who switched on the boiler to turn on the washing machine, didn't know how to use washing powder, had difficulty waiting for the delivery man despite heartfelt promises, but did however very generously provide toilet paper, which they took from their workplaces. This glimpse into their cultures was nothing short of remarkable.

There are also Erasmus groups on Instagram and on Whatsapp, which is a good way to meet people who are willing to speak English. Finding the precise time and location is however yet again challenging, as the monthly calendar can be posted in an arbitrary Instagram story that disappears after 24 hours, the events could be announced at midnight on the previous day out of the blue, or mention locations such as "the beach" which is many-a-kilometer long strip of land. The beach is truly one of Valencia's highlights and I spent a really good time there doing a 4-day surfing course on discount with the university sports card, but could be purchased without one, nevertheless. Absolutely recommended.

4. Financing

My finance was provided through the Erasmus funding, the additional funding for the support of equal opportunities, 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). The supermarket prices here are similar to Germany, the restaurant prices are about 1/3 lower, yet the culture involves way more frequent restaurant/bar going and enjoying the very good paella and tapas. I would recommend having a budget similar to the one in Munich, excluding accommodation.

5. Conclusion

My first few months in Spain were quite challenging due to the administrative procedures I undertook and due to the vastly different idea of time and socialization compared to Germany. My project in Valencia goes on beyond this funding period, and I am sure that the effort I have invested so far will pay off. I am happy that I came here, because living in South Europe was something I wanted to try for a long time, and it is very valuable to know what my life might look like if I decide to move here permanently. People in Spain are happy with life and have good social skills. This is the message I plan to take home and work on.

I am 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.