## DO YOU WANT TO STUDY THEORETICAL CHEMISTRY IN EUROPE?

The Master Erasmus Mundus in Theoretical Chemistry and Computational Modelling (TCCM) offers you the possibility to study a master in an area of high impact and in which well-trained professionals are highly demanded. Theoretical simulations are nowadays needed in all subfields of chemistry and molecular physics. Their range of applications includes the design of new drugs in the pharmaceutica industry, new materials, and nanodevices, as well as the prediction of chemical reactivity. We welcome applicants from different academic backgrounds, if you are not an expert in physic, chemistry, or any other field of the master, we offer levelling courses.

### THE MASTER PROGRAMME

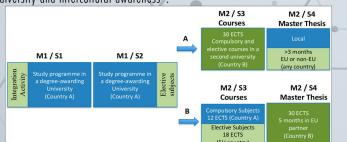
The TCCM Master programme (120 ECTS, 2 years) involves a large consortium of european universities but also includes non-European partners. Some of the most prestigious universities in USA, Chile, Japan, China, UAE and Australia participate as associated partners. The consortium also involves supercomputer centers and companies. The common study plan is organized in a wide number of activities and courses. It involves extended periods of mobility in a minimum of two EU countries, including a period performing research while based in one of the member institutions of the consortium. Also, the course involves studying in an international and friendly atmosphere!

# FIRST YEAR (M1)

M1 is mostly delivered at a local level (i.e. through courses taught in the university within the consortium where the student has registered) and ensures a common basis of covered material, including fundamental aspects such as theoretical methodologies, computational techniques and applications. To be admitted to the master, you must have earned a bachelor degree (licence) in chemistry, physics or related areas. No initial knowledge of computational and programming techniques is required to enter the master, we also ensure that all students reach the necessary knowledge of mathematics and physics at the end of the first year of the master. At the very beginning of the M1, an integration activity ensures the foundation of a community among all TCCM students, independently of the institution in which they are registered, shaping what will become a support and collaboration network during and after their master studies.

# **SECOND YEAR (M2)**

The courses in M2 include a compulsory part and several elective subjects to cover different fields of applications. All M2 courses take place during the first semester and are taught in common to all students irrespective of their initial university of registration. Classes have been designed to promote mobility and will be held in different countries. During the second semester of M2, all students do their master thesis as members of two groups from different partners and countries. This enhances collaboration and integration among research groups and ensures that students learn at least two complementary techniques. In the master thesis, students spend a minimum of three months in a different country than the one of their university of initial registration. This mobility period can be done outside Europe in any of the non-EU partners. One of our EMJMD objective is to "promote linguistic diversity and intercultural awareness".



With the support of the Erasmus+ Programme of the European Union



**Master Studies in Theoretical Chemistry and Computational Modelling** 

JOIN OUR TECM MASTER

ENJOY CHEMISTRY IN EUROPE



TWO-YEAR RESEARCH ORIENTED MASTER:

PhD POSSIBILITIES (90 % after master)

HIGH EMPLOYABILITY in academia and companies •



Material design and nanoscience Development of methods Applications to chemistry Drug design







### **PARTNERS\***

**Autonomous University of Madrid (Coordinator)** 

University Toulouse III - Paul Sabatier (Co-Coordinator)

University of Barcelona

Catholic University of Leuven

**University of Groningen** 

University of Perugia

Sorbonne University

**University of Trieste** 

University of Valencia

Full list of Associated Partners is at the TCCM web page







# **KU LEUVEN**



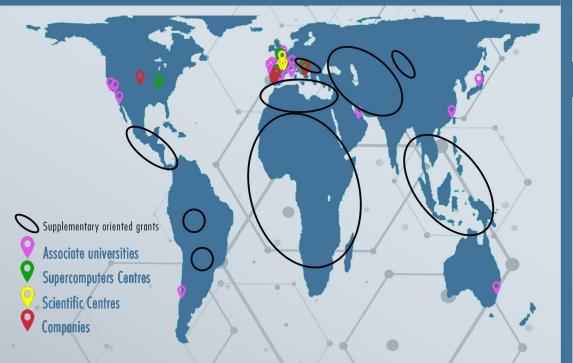








# ASSOCIATED PARTNERS AND SUPPLEMENTARY REGION ORIENTED GRANTS



#### THE SCHOLARSHIPS

The call for scholarships to start the Master in the academic year 2021-2022 is already open. To apply fill the application form in the web page of the TCCM master www.emtccm.org Deadline for application is February 28th of 2021.

The scholarships will cover:

- Living allowance: a contribution for subsistence costs of 1000€/month during 24 months. •
- Participation Costs: all tuition fees and participation costs, as attendance to courses, will be covered.
- Insurance health fully covering the two years of the master in any of the countries where the student will do mobility periods.
- Contribution to travel and installation costs: between 1000 and 4000 €/year depending on the country of origin.

### **INCLUSIVENESS AND GENDER POLICY**

The EMMTCM is committed to strengthening gender mainstreaming and developing countries inclusion. Grants are open to applicants from any country of the world, but in order to promote some regions, there are some grants that will be assigned to applicants coming from specific countries. The number of these special grants and the full list of these specific countries is available through the web page of the TCCM master.

We have 20 years' experience in receiving students from all around the world and when needed we provide students with complementary tuition to compensate for bachelors education which may be weaker in some areas relevant for the master.

The TCCM master follows a policy of promoting women applicants. We are aware of the extra difficulties that many women experience when undertaking a career in science, and it will be taken into account in all the selection procedures. Many of the professors and research leaders involved in the master consortium are women, and to continue our work for gender balance in science, we encourage the next generation of women in STEM (Science, Technology, Engineering and Mathematics) to apply to the TCCM master.

## **TCCM ALUMNI**

The TCCM Master has been running as international master since 2005. The TCCM alumni association keeps in contact and promotes former studies, many of them now in academic and research positions.



#### ORIANA BREA

The TCCM program paved the way for my career as a researcher. The TCCM trained me as a computational chemist, supported me both financially and personally when I moved far away from my home country (Venezuela), and helped me in building an international scientific network. Being a TCCM alumni is equivalent to have a prestige certificate as computational chemist. I will always be grateful to the consortium for such a great opportunity.

2011-2013 TCCM Master (Madrid) 2013-2017 PhD (Madrid - Toulouse)

2017-2021 (Postdoc at Stockholm University)

See more testimonials at https://www.emtccm.org/testimonial-