

Julia Contreras García

I did my PhD in Universidad de Oviedo (Spain) and then moved as a Fulbright-RLK fellow at Duke University under the advisory of **W. Yang and D. Beratan**. During this time I was initially invested in a project for the analysis of the **Chemical Universe**, which led to two publications, one of them in **J. Am. Chem. Soc.** Once under my own funding, I returned to the Chemical bond analysis. We introduced a new index, **NCI** (Non Covalent Interactions) which enables visualization of non covalent interactions, which was also published in **J. Am. Chem. Soc. (over 2000 citations)**. I also wrote the program to analyze this index, **NCI PLOT**. The associated paper was published in 2011 in JCTC and was among **the top 10 most read JCTC** papers this year. It has received over 1000 citations and more than 8000 downloads.

Funded by the Ministry of Spain for one year, I moved to France, to the Laboratoire de Chimie Théorique (LCT), where some months later I earned a CNRS position. In 2015 I defended my **HdR**. **Since 2018 I am team leader** of one of the most historical research lines of the LCT, Chemical Interpretation. **Last year, I was finalist for the Dirac medal (2nd place) by the WATOC committee**. I am part of the European High Pressure Committee and I have received the **European High Pressure Award** (2013). In 2015 I was elected member of the **European Committee of High Pressure**, and since 2018 I became the **Secretary**.

During these years I have published 97 articles and 10 book chapters. Among these publications, it is worth mentioning 3 JACS, 1 Phys Rev Lett, 1 WIREs, 1 Chem Comm, 1 Chem Sci and 5 Chem Eur J. I also wrote two JCTC papers which entered the **10-most-read of their year** of publication. I am in the process of publishing a **full book** along with A. M. Pendás on Quantum Topology for Springer TCCM series. I have also received an invitation for **WIREs** in 2020.

I have received 43 invited talks. Those include **1 plenary at the ICQC (2021)** as well as **1 keynote at the IUCr (2020)** and **3 invitations to WATOC (2014,2017,2020)**, one to a Solvay workshop and 1 to a Gordon Conferences.

From expertise point of view, I have been the **president of the the FWO Chemistry fellowships panel**. I have also been part of national panels in Spain, Portugal and Mexico. I have worked as a reviewer for numerous chemistry and physics journals (ACS Catalysis, Chemical Science, JCTC, PCCP, etc.). I was editor of the special Issue on "Understanding structure and reactivity from topology and beyond" in CTC, which led to me being appointed part of the **editorial board of CTC**.

I have also been involved in the **creation of scientific associations** (European Committee of Chemical Bonding, Women Under High Pressure). I have also been very initiatives of **women in science**. I have created the online database "Women under High Pressure". This has led to several public conferences and interventions in Conferences and the development of a permanent set of rules to promote women participation in IUCr conferences.