
Lorenzo CONTESSI

talks and other contributions



Invited talks and visits

I was invited to talk about my work on several occasions both for the side of EFT on nuclear systems and for the side of hypernuclear physics. The last ones were in Trento (IT), Santa Barbara (US-CA) and Mainz (DE):

- Critical stability of few body quantum systems <https://www.ectstar.eu/workshops/critical-stability-of-few-body-quantum-systems/>
- Living Near Unitarity <https://www.kitp.ucsb.edu/activities/fewbody22>
- European few-body conference <https://indico.him.uni-mainz.de/event/150/>

where I was invited to talk about the recent developments in renormalizability, contact EFTs, and hypernuclear physics respectively. In Mainz I had also the responsibility to lead the relative parallel session.

Moreover, in 2019 I was invited to work for 2 months in Japan at Rikken (Few-body Systems in Physics laboratory) during which permanence I was invited to give a talk at

- 52nd Reimei Workshop <https://asrc.jaea.go.jp/soshiki/gr/hadron/workshop/reimei2019/> (talk + poster)

I also spent cumulatively few months at the INT (US-WA) where I was invited to present my work at

- Nuclear Structure at the Crossroads <https://archive.int.washington.edu/PROGRAMS/19-2a/>
- Advances in Monte Carlo Techniques for Many-Body Quantum Systems <https://archive.int.washington.edu/PROGRAMS/19-2b/>
- Nuclear Physics from Lattice QCD <https://archive.int.washington.edu/PROGRAMS/16-1/>

I was also invited to talk at

- TNPI2019 - XVII Conference on Theoretical Nuclear Physics in Italy (<https://agenda.infn.it/event/19425/>)

and to present my work to a broader audience, as researchers outside the field and students, in online mini-colloquium style conferences on two occasions:

- At Racah institute in Jerusalem after my departure (2019),
- In India at the SRM University AP, Andhra Pradesh (2022).

Contributed and visit talks

I also participated in other workshops and events with a contribution

- XXII International Conference on Few-Body Problems in Physics FB22 (2023, Caen)
- Online workshop on wave-function methods in quantum chemistry and nuclear physics (Online, 2021)
- Progress in Ab Initio Techniques in Nuclear Physics (2020, Vancouver)
- 24th European Conference on Few-Body Problems in Physics (2019, Surrey)

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- The 13th International Conference on Hypernuclear and Strange Particle Physics (2018, Portsmouth)
 - The 8th International Workshop on Chiral Dynamics (2015, Pisa)
 - Lattice Nuclei Nuclear physics and QCD - Bridging the gap (2015, Trento)
 - annual midwest theory get-together (2015, Argonne)

On several other occasions, I also had the chance to present a talk to local groups during research visits, e.g., Prague (few times), Strasbourg (2020), Kyoto (2018), Mainz (2019).

Students supervision

- 2023 **Informal supervision of a Ph.D. student** A. Di Donna
- 2022 **L3 stage**
Supervision of stage project: “Numerical study of the few-body problem”
- 2019 **Informal supervision of a Ph.D. student** M. Schäfer

Teaching experiences

- 2021 **Internal lectures at CEA**, Université Paris-Saclay, France
Lectures on Quantum Monte Carlo method
- 2015 - 2016 **Teaching assistant**, Department of Engineering, University of Trento, Italy
Classical mechanics and electro/magneto statics/dynamic
- 2014 - 2015 **Tutoring**, Department of Engineering, University of Trento, Italy
Electro/magneto statics and dynamics
- 2012 - 2013 **Tutoring**, Department of Science, University of Trento, Italy
Classical mechanics

Workshop organization

- 2021 **Mini-workshop on scattering resonances**
<https://esnt.cea.fr/Phoceae/Page/index.php?id=99>
C.a. 100 participants, online/in-person mixed
- 2015 **Annual Ph.D. workshop of University of Trento**
<https://webmagazine.unitn.it/evento/drphys/7250/physics-phd-workshop-2015-16>
Open participation, opening of the Doctorate program academic year (2015-2016)

Other contributions to the research community

During my career, I have strived to create a friendly and constructive working environment, especially for students, engaging the team in various activities both within and outside of the workplace. While

in Israel, I organized the Jerusalem Journal Club to encourage students and researchers to share the latest developments in their respective fields. During my postdoc at IJCLab, I have endeavored to engage students and staff in extracurricular activities such as social events and dinners to enhance communication and information sharing. I have also actively participated in various events within and beyond the physics community. This includes involvement in student schools like the Aussois PhyNuBe meetings in 2021 and 2022, as well as nuclear retreats in Cesarea for the Racha Institute in 2018. I have contributed to the broader physics community by attending meetings of the Israeli Physics Society and meetings in France, such as ResaNet meetings in Lyon and GANIL meetings (2022). Furthermore, I have been involved in the local laboratory life, e.g. holding the Nuclear Coffee (group seminars) in both 2015 and 2021. I am currently in the process of obtaining accelerator clearance, which will allow me to participate in the experimental activities at the laboratory. Lastly, with a potential interest in teaching at the university level, I obtained the French Qualification in 2023 (Qualified for section 29: #23229387080).