



UPO

UNIVERSITÀ DEL PIEMONTE ORIENTALE
DIPARTIMENTO DI SCIENZE E INNOVAZIONE TECNOLOGICA

EVENTI DiSIT

Seminario | Seminar

17-09-2024

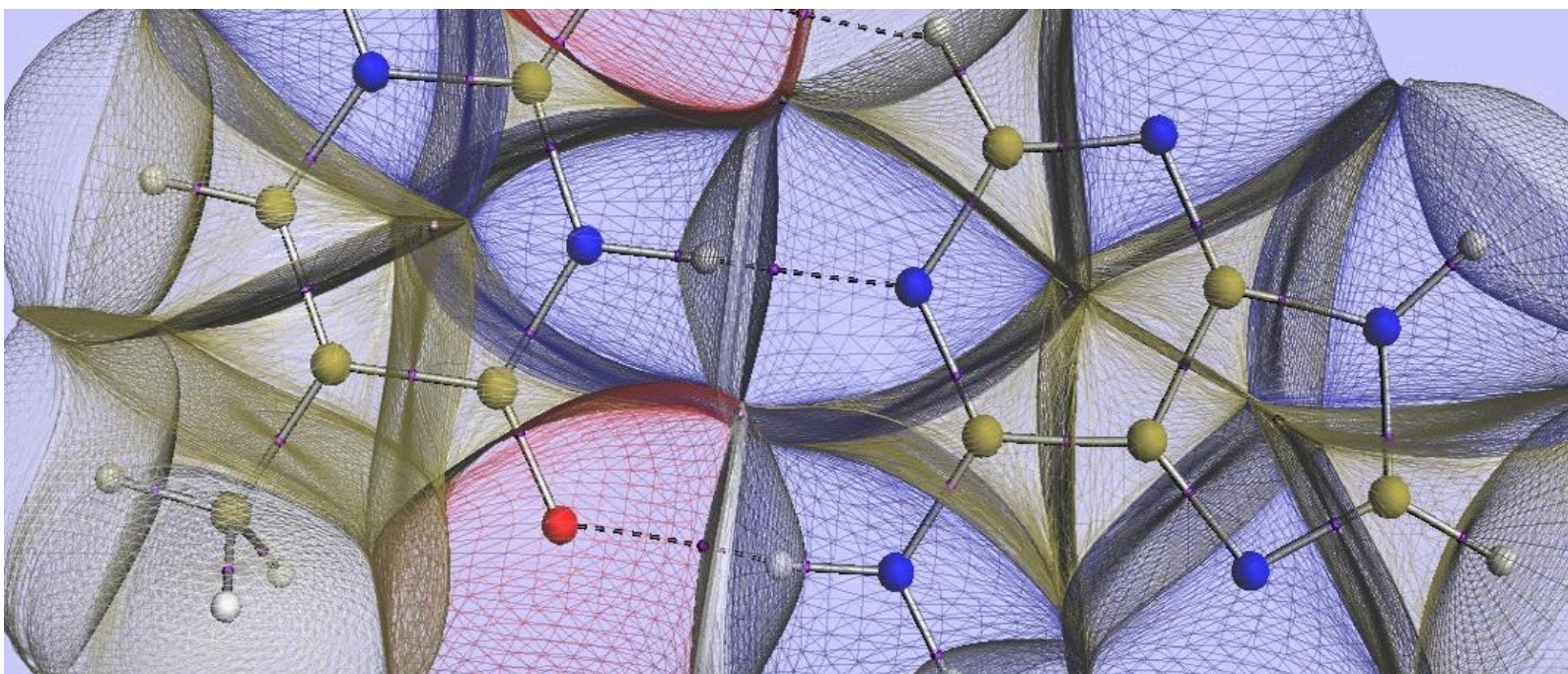
11:00-12:00

Aula 203

A Scientific Journey along with Non-Covalent Interactions

[Dr. Manuel Petroselli](#)

Institute of Chemical research of Catalonia (ICIQ), Tarragona, Spagna



Supramolecular chemistry is defined as “the chemistry beyond the molecule” and uses non-covalent interactions such as hydrogen bond, π -interactions and dispersion forces to modulate equilibria, chemical reactivities and binding events in solution, mimicking the action of biological enzymes and proteins. ¹ Recently, non-covalent interactions aroused great interest for their importance in biological processes and their modulation, in terms of nature and strength, through external stimuli (e.g. temperature, solvent, pH and light),^{2,3} reversibly affecting the macroscopic and microscopic properties of the system where they are involved. Here, I present a journey along with non-covalent interactions, highlighting their potential and importance in several fields such as catalysis, organic chemistry, molecular recognition and chemical biology. ⁴⁻⁷

References

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2. P. A. Gale, J. T. Davis, R. Quesada, *Chem. Soc. Rev.*, **2017**, 46, 2497.
3. A. E. Aliev, W. B. Motherwell, *Chem. Eur. J.*, **2019**, 25, 10516.
4. M. Petroselli, L. Melone, M. Cametti, C. Punta, *Chem. Eur. J.*, **2017**, 23, 10616.
5. M. Petroselli, V. Angamuthu, F.-U. Rahman, X. Zhao, Y. Yu, J. Rebek Jr., *J. Am. Chem. Soc.*, **2020**, 142, 2396.
6. M. Petroselli, C. Bacchiocchi, *Org. Chem. Front.*, **2022**, 9, 6205.
7. M. Petroselli, Y.-Q. M.-K. Zhao, J. Rebek Jr., Y. Yu, *Chinese Chemical Letters*, **2023**, 34, 107834.

EVENTO APERTO A:

Docenti | Teachers, Borsisti | Research Fellows, Assegnisti | Postdoctoral researchers, Dottorandi | PhD students, Studenti | Students

SEMINARIO IN LINGUA: Inglese

