

## CV Prof. P. DECLEVA (2020)

Born 21.4.1949 TRIESTE (Italy)

Education: 1973, Degree "Dottore in Chimica" cum laude, University of Trieste

1975-1976 Fellowships from Accademia Nazionale dei Lincei, CNR (National Research Council), MPI (Ministry of Education)

1976-1982 Lecturer in Theoretical Chemistry

1982-1994 Associate Professor of Quantum Chemistry

1994-2019 Full Professor of Chemical Physics, University of Trieste.

2004-2010 Chairman of the Study Council in Chemistry

2020- Senior associate CNR-IOM, Guest of the Department of Chemistry, Trieste

Visits at the University of Uppsala (1979) and the Free University of Amsterdam (1989).

Short visits and invited seminars at several institutions, Italian (Pisa, Rome) and foreign, among the recent ones Berlin (Fritz Haber, Humboldt), Madrid (U. Autonoma), Crete (Forth), Dresden (MPIKS), Hamburg (Desy, CFEL), Paris (UPMC, Soleil)

Former Director of the Centre for Scientific Computing, University of Trieste, member of the Scientific Advisory Committee, CINECA, Bologna. Long experience in HPC, notably parallel computing.

Coordinator of Working Group 2, COST Action number: CM0702 "Chemistry with Ultrashort Pulses and Free-Electron lasers: Looking for Control Strategies Through "Exact" computations", currently COST Action AttoChem (CA18222).

Several collaborations with research groups in Italy and abroad

- A. Saenz, (Berlin): Strong field molecular photoionization.

- Gas Phase and circularly polarized Beam Lines at Elettra and LDM at Fermi (M. De Simone, M. Coreno, K. Prince, S. Stranges, M. Alagia, S. Turchini, C. Callegari). Collaborations on photoabsorption and core and valence photoemission in small molecules, transition metal complexes, chiral species, pump-probe experiments

- Pleiades and Galaxies beam lines at Soleil (M. Simon, M.N. Piancastelli, UPMC, Paris) Oriented molecules, interference effects, high energy structures. Member of Soleil evaluation panel.

- A. Yagishita (Photon Factory, Tsukuba) Time resolved photoionization from oriented molecules.

- C. Angeli (University of Ferrara) Ab initio CI/PT techniques for excited and ionized states.

- D.M.P. Holland (Daresbury) angularly resolved valence photoemission, asymmetry parameters.

- F. Martin, Universidad autonoma de Madrid, nuclear motion effects in photoemission, ultrafast charge migration.

- K. Ueda (Spring8, SENDAI) vibrationally resolved photoionization, MFPADS

- N. Doslic', R. Boskovic' Institute, Zagreb, Semiclassical Nuclear Dynamics, Time Resolved Photoemission.

- Sonia Coriani (DTU-Technical University of Denmark and NTNU-Norwegian University of Science and Technology), ab initio approaches to molecular photoionization.

Author of about 300 publications, h-index=35 (WOS). Several invited talks at meetings and conferences.

### SCIENTIFIC INTERESTS

- Methods for multicenter continuum wavefunction evaluation and interpretation.

- Theoretical molecular photoemission, oriented and chiral molecules, pump-probe experiments.

- Many body effects in atomic and molecular photoemission and photoabsorption.

- Electronic structure and spectroscopy of transition metal compounds.

- Multiphoton and Strong Field ionisation, molecular dynamics with free electron laser

Main author of the LCAO B-spline code "Tiresia" for the calculation of electronic continuum processes, single.few photon and strong field ionization in complex molecules, currently prepared for public distribution (open source)