**Curriculum Vitae**

**Name:** Martina Dell’Angela

**Date of birth:** 16th September 1981 (age 38)

**Nationality:** Italian

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**EDUCATION**

**16/03/2009 PhD in Physics** at University of Trieste, Italy.

**26/09/2005 Master degree in Physics** at University of Trieste, Italy (Mark: 110/110 cum laude)

**26/09/2003 Bachelor degree in Physics** (Mark: 110/110 cum laude) at University of Trieste, Italy

**CURRENT POSITION**

Permanent Researcher (since 30/12/2016), CNR –IOM SS 14 km 163.5 Trieste (IT)

**PREVIOUS POSITIONS**

**16/10/2015-29/12/2016** Fixed Term Researcher, CNR –IOM SS 14 km 163.5 Trieste, Italy

**17/6/2013-14/10/2015** Post-Doc *(Collaboratore a progetto)* at MAGNEDYN Beamline, group of Prof. F. Parmigiani, FERMI FEL, Elettra Sincrotrone Trieste S.C.p.A., Trieste, Italy

**1/3/2010-14/06/2013** Post-Doc, group of Prof. Wilfried Wurth, Institute for Experimental Physics (Hamburg University) and CFEL, Hamburg, Germany

**15/1/2009-28/2/2010** Post-Doc *(Assegno di ricerca*), group of prof. Alberto Morgante, INFM CNR-TASC (now CNR-IOM), Trieste, Italy

**1/2006-12/2008** PhD in Physics, University of Trieste, Trieste, Italy working at ALOISA beamline (INFM CNR-TASC) at Elettra Sincrotrone Trieste S.C.p.A., Trieste, Italy

**GRANTS and OTHER PROFESSIONAL ACTIVITIES**

**2015-2020** PI of a research grant funded by the Italian Ministry of Research and Education (MIUR) under the SIR (Scientific Independence of young Researcher) program. Title of the project: “Sunlight-initiated dynamics in organic photovoltaic materials” (SUNDYN, P. Number: RBSI14G7TL). Budget: 465.960 €

**2019-2021** MIUR PRIN 2017, “Fast ElectRon dynamics in novel hybrid organic-2D MATerials - FERMAT”, PI. Prof. Stefano Baroni; Role: Cordinator of CNR Research unit.

**Since 2018** Member of the HZB Proposal Selection Panel college C3a at BESSY synchrotron, Berlin

**Since 26/07/2018** Abilitazione Scientifica Nazionale Settore concorsuale 02/B1, Fisica sperimentale della materia

**ACHIEVEMENTS**

**40 publications in peer-reviewed journals**

**2 publications in Science (1 as first author)**

**1 publication in Nanoletters, 1 in Structural Dynamics, 1 in Scientific Reports as first author**

**1 book chapter**

**6 publications as first author**

**844 citations of peer-reviewed papers *( from Scopus 20/04/2020)***

**h-index = 15**

**RESEARCH ACTIVITY**

During my PhD and first Post-Doc at the ALOISA beamline of the Elettra Synchrotron Light Source (Trieste, Italy), I applied X-ray spectroscopic techniques to the study of thin films of organic materials on noble metals, i.e. X-ray absorption (NEXAFS), Photoelectron Spectroscopy (PES) and Resonant Photoemission (RESPES). Moreover I employed several standard surface science techniques for the preparation and characterization of organic thin films in ultra high vacuum conditions (UHV). My PhD research was focused on studies of electronic states at equilibrium in systems relevant for organic electronics and biomedical applications

Subsequently I moved as a Post-Doc to the group of Prof. Wilfried Wurth in Hamburg (CFEL) to study the dynamics of the electronic structure in surface reactions of adsorbates or thin films on metals by combining standard synchrotron X-ray core level spectroscopic techniques and the new Free Electron Laser sources. I performed time resolved Resonant X-ray Emission (XES, RIXS) and time resolved PES experiments at the FEL facilities FLASH (Hamburg, DE) and LCLS (Standford, USA). For the measurements at the SXR instrument of LCLS, I contributed to the construction and commissioning of the Surface Science Endstation (SSE). The femtochemistry work at LCLS has been performed within an international collaboration leaded by Prof. Anders Nilsson (SLAC, USA and Stockholm University) and Prof. Wilfried Wurth. The most important results on surface femtochemisty at FELs have been published in Science and the experiments continued recently at the FERMI FEL. Time resolved PES experiments have been performed both at LCLS and at FLASH. We studied the change of metal and adsorbate core levels after the optical pump. We deeply studied X-ray and optical laser induced space charge and have been able to distinguish surface and bulk effects in the core levels due to the optical pump.

In June 2013 I moved to ELETTRA (Trieste) as a Post-Doc in the team of Prof. Parmigiani for the design and construction of a FEL beamline (Magnedyn) at the italian FEL (FERMI). In particular I contributed to the design of the magnetic endstation of the beamline devoted to time resolved XMCD and to the design and construction of an endstation for M-edge RIXS measurements at the FEL (RIXS@FERMI project). The project is in close collaboration with Prof. Wilfried Wurth. I performed the first commissioning of the RIXS endstation temporary installed at the TIMEX beamline, measuring for the first time at a FEL high resolution RIXS on a case system: CoO and KCoF3.

Since 16th October 2015 I moved to CNR-IOM as PI of a project funded by the Italian MIUR under the SIR (Scientific Independence of young Researcher) program. My research is now focused on the development of time resolved X-ray spectroscopies for the study of the dynamics of the electronic structure in organic solar cells under working conditions. I built and commissioned a set-up that allows the possibility to perform on the same sample table top measurements like two photon photoemission measurements and picosecond time resolved photoemission and X-ray absorption measurements with the synchrotron. We successfully studied the dynamics of triplet states in pentacene thick films.

**INVITED TALKS AT NATIONAL AND INTERNATIONAL CONFERENCES AND INVITED SEMINARS**

* 20-25/10/2019 AVS 66th International Symphosium Columbus (Ohio) “*Triplet Dynamics in Photovoltaic Materials Measured with Time Resolved X-Ray Spectroscopies*”
* 27/09/2019 XV  School on Synchrotron Radiation, Muggia (Italy) “*Time resolved experiments probing interfacial phenomena –SR and FELs*”
* 13/07/2018 2nd NFFA Europe Summer School, Trieste (Italy) “*Time-resolved soft x-ray spectroscopy on organic films*”
* 15/02/2018 Winter College on Nonlinera Optics, Attosecond Science and High Field Physics, Trieste (Italy), “*Presentation of Elettra and selected Syncrotron radiation applications*”
* 7-10/02/2018 Science at FEls, Ringberg (Germany), *“ Time resolved M-edge RIXS experiments at the FERMI FEL”*
* 13/11/2017 Selected as Young Scientist representative of Elettra Sincrotrone Trieste for the LEAPS signing ceremony event in Brussels.
* 21/04/2017 ELI-Attosecond Light Pulse Source, Szeged (Hungary), “*Femtosecond X-ray Spectroscopy for Catalysis and Photovoltaics*”
* 23-28/07/2017 EUSpec School and workshop X-TRAM, Erice (Italy), “*Femtosecond X-ray Spectroscopy for Catalysis and Femtochemistry*”
* 12-16/12/2016 Materials.it 2016, Catania (Italy), “*Soft X-ray probes for ultrafast femtochemistry and catalysis”*
* 21-23/03/2016 SXL Workshop to define the science case for a soft X-ray beamline at MAX IV Stockholm (Sweden), “*Femtosecond X-ray Spectroscopy for Photovoltaics*”
* 13-17/07/2015 FEMTO12 The Hamburg conference of Femtochemistry, Hamburg (Germany), *“Ultrafast Surface Chemistry and Catalysis with an X-ray Laser”*
* 19-20/11/2014 VolkswagenStiftung Symphosium “Advances in Free-Electron Laser Science”, Hannover (Germany), “*Real-time observation of surface bond breaking with an x-ray laser”*
* 16-20/9/2013 Dynamic Pathways in Multidimensional Landscapes, Berlin (Germany), “*Real-time observation of surface bond breaking with an x-ray laser”*
* 04/2013, ELETTRA, Trieste (Italy), *“Time resolved spectroscopy at surfaces”*

**PUBLICATION LIST (10 most representative papers)**

1. ***Dell'Angela, M.;*** Kladnik, G.; Cossaro, A.; Verdini, A.; Kamenetska, M.; Tamblyn, I.; Quek, S. Y.; Neaton, J. B.; Cvetko, D.; Morgante, A.; Venkataraman, L. *Relating Energy Level Alignment and Amine-Linked Single Molecule Junction Conductance* Nanoletters 10(7), 2470-2474 (2010)

2. ***Dell'Angela, M.****;* Anniyev, T.; Beye, M.; Coffee, R.; Föhlisch, A.; Gladh, J.; Katayama, T.; Kaya, S.; Krupin, O.; LaRue, J.; Møgelhøj, A.; Nordlund, D.; Nørskov, J. K.; Öberg, H.; Ogasawara, H.; Öström, H.; Pettersson, L. G. M.; Schlotter, W. F.; Sellberg, J. A.; Sorgenfrei F.; Turner J. J.; Wolf M.; Wurth, W.; Nilsson, A. *Real-Time Observation of Surface Bond Breaking with an X-ray Laser*, Science, 339 (6125) 1302-1205 (2013)

3. Katayama, T.; Anniyev, T.; Beye, M.; Coffee, R.; ***Dell'Angela, M****.;* Föhlisch, A.; Gladh, J.; Kaya, S.; Krupin, O.; Nilsson, A.; Nordlund, D.; Schlotter, W. F.; Sellberg, J. A.; Sorgenfrei, F.; Turner, J. J.; Wurth, W.; Öström, H.; Ogasawara, H., *Ultrafast soft X-ray emission spectroscopy of surface adsorbates using an X-ray free electron laser*, Journal of Electron Spectroscopy and Related Phenomena, 187, 9-14 (2013)

4. Öström H.; Öberg, H.; Xin, H.; LaRue, J.; Beye, M.; ***Dell'Angela, M****.;* Gladh, J.; Ng, M. L.; Sellberg, J. A.; Kaya, S.; Mercurio, G.; Nordlund, D.; Hantschmann, M.; Hieke, F.; Kühn, D.; Schlotter, W. F.; Dakovski, G. L.; Turner, J.J.; Minitti, M. P.; Mitra, A.; Moeller, S. P.; Föhlisch, A.; Wolf, M.; Wurth, W.; Persson, M.; Nørskov, J. K.; Abild-Pedersen, F.; Ogasawara, H.; Pettersson, L. G. M.; Nilsson, A. *Probing the Transition State Region in Catalytic CO Oxidation on Ru,* Science 347 (6225) 978, (2015)

5. ***Dell'Angela, M.****;* Anniyev, T.; Beye, M.; Coffee, R.; Föhlisch, A.; Gladh, J.; Kaya, S.; Katayama, T.; Krupin, O.; Nilsson, A.; Nordlund, D.; Schlotter, W. F.; Sellberg, J. A.; Sorgenfrei F.; Turner J. J.; Ogasawara, H.; Öström, H.; Wolf M.; Wurth, W. *Vacuum space charge effects in sub-picosecond soft X-ray photoemission on a molecular adsorbate layer,* Structural Dynamics, 2 (2), 025101 (2015)

6. ***Dell'Angela, M****.;* Hieke, F.; Sorgenfrei, F.; Gerken, N.; Beye, M.; Gerasimova, N.; Redlin, H.; Wurth, W. *Ultrafast surface dynamics probed with time resolved photoemission* Surf. Sci. 643, 197 (2016)

7. ***Dell’Angela M.;*** Hieke F.; Malvestuto, M.; Sturari, L.; Bajt, S.; Kozhenikov, I.V.; Ratanapreechachai J.; Caretta, A.; Casarin B.; Glerean F.; Kalashnikova, A.; Pisarev R. V.; Chuang, Y.-D.; Manzoni, G.; Cilento, F.; Mincigrucci R.; Simoncig A.; Principi, E.; Masciovecchio C.; Raimoni L. ; Mahne N.; Svetina, C.; Zangrando, M.; Passuello, R.; Gaio, G.; Prica, M.; Scarcia, M.; Kourousias, G.; Borghes, R. ; Giannessi, L.; Wurth, W.; Parmigiani F. *Extreme ultraviolet resonant inelastic X-ray scattering (RIXS) at a seeded free electron laser*, Scientific Reports, 6, 38796 (2016)

8. Nilsson A.; Larue J.; Oberg H.; Ogasawara H.; **Dell’Angela M**.; Beye M,; Ostrom H., Gladh J., Norskov J. K.; Wurth W.; Abild-Redersen F.; Pettersson L. G. M. *Catalysis in real time using X-ray lasers* Chem Phys Lett, 675 (2017) 145

9. Costantini, R., Stredansky, M., Cvetko, D., Kladnik, G., Verdini, A., Sigalotti, P., Cilento, F., Salvador, F., De Luisa, A., Benedetti, D., Floreano, L., Morgante, A., Cossaro, A., **Dell'Angela, M.** ANCHOR-SUNDYN: A novel endstation for time resolved spectroscopy at the ALOISA beamline (2018) Journal of Electron Spectroscopy and Related Phenomena, 229, pp. 7-12.

10. Costantini, R., Faber, R., Cossaro, A., Floreano, L., Verdini, A., Haettig, C., Morgante, A., Coriani, S., **Dell’Angela, M.**, Picosecond timescale tracking of pentacene triplet excitons with chemical sensitivity (2019)

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