




PERSONAL INFORMATION

Pietro Parisse

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Sex M | Date of birth 01/04/1980 | Nationality Italian

WORK EXPERIENCE

July 2020 –

Researcher

Italian National Research Council – Istituto Officina dei Materiali .

Activity: Researcher in soft-matter, biophysics, nano-biotechnology

April 2019 – June 2020

Researcher

Umana S.p.A.

Activity: Staff leasing at Elettra Sincrotrone Trieste S.C.p.A. as researcher in nano-biotechnology

May 2017 – March 2019

Fixed-term Researcher

Elettra Sincrotrone Trieste S.C.p.A - S.S. 14 - km. 163,5 Basovizza 34149 Trieste (Italy)

▪ Activity: principal investigator of Interreg Ita-Austria project

Exosomes for regenerative, immunosuppressive, neuroprotective, and oncosuppressive therapies (EXOTHERA – ITAT1036)

April 2015 – March 2017

Fixed-term Researcher

Elettra Sincrotrone Trieste S.C.p.A - S.S. 14 - km. 163,5 Basovizza 34149 Trieste (Italy)

▪ Activity: research at NanoInnovation Laboratory

March 2012- March 2015

Young Researcher Fellowship

INSTM – ST Unit – Trieste (Italy)

▪ Activity: Nanotechnological approaches towards cancer theragnostics

October 2008 - March 2012

Post-doctoral fellow

Elettra Sincrotrone Trieste S.C.p.A. – Trieste (Italy)

▪ Activity: Hybrid organic/inorganic interfaces for displays and biochips applications

EDUCATION AND TRAINING

June 2008 – August 2008

Visiting Researcher at National Physical Laboratory (NPL)

National Physical Laboratory (NPL) – London (UK)

▪ Development of Tuning Fork based Low Temperature Magnetic Force Microscope. Supervisors: Prof. A. Tzalenchuk and Dr. O. Kazakova, NPL

February 2007 – October 2007

Visiting Student at Kavli Institute of Nanoscience

Kavli Institute of Nanoscience – Delft University of Technology (Netherlands)

- Metal/organic interfaces: contact resistance in organic single crystal transistors. Supervisor: Prof. A.F. Morpurgo, Molecular and Electronic Devices, Kavli Institute of Nanoscience, Delft University of Technology

October 2005 – May 2009 **PhD student in Physics**

University of L'Aquila (Italy)

- Thesis title: *Morphological, structural, electronic, and transport properties of thin films and single crystals of aromatic compounds: pentacene, 6,13 pentacenequinone, rubrene*. Supervisor: Dr. L.Ottaviano

2002 - 2005 **Master Degree in Physics** Full marks

University of L'Aquila (Italy)

- Experimental thesis: *Electronic and Structural properties of Pentacene in the thin film phase*. Supervisors: Prof. S.Santucci, Dr. L.Ottaviano, Dipartimento di Fisica, Università dell'Aquila

1999 - 2002 **Degree in Physics** 106/110

University of L'Aquila (Italy)

- Experimental thesis: *Experimental implementation of Spin-Polarized Scanning Tunneling Microscopy/Spectroscopy*. Supervisors: Prof. P.Picozzi, Dr. L.Ottaviano, Dipartimento di Fisica, Università dell'Aquila

PERSONAL SKILLS

Mother tongue Italian

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C1	C1	C1	C1
French	B2	B2	B1	B1	B1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
Common European Framework of Reference for Languages

Organisational / managerial skills

- Excellent organizational skills and coordination of partners for the preparation of European and national research grants;
- Good predisposition in: time optimization and problem solving;
- Good communicative skills developed through different experiences in public science;
- Good attitude in interacting with different stakeholders, adapting the level of the discussion and the amount of information needed;
- Good attitude in team working;
- Good attitude in communication of complex topics, summarizing the main focus of the subject.

Technical skills

- Scientific background: structural, morphological and functional properties of biomacromolecules (DNA and proteins) and extracellular vesicles; surface science, organic semiconductors, scanning probe techniques, micro and nano lithography based on scanning probe microscopy
- Laboratory skills: soft lithography, exosomes purification, size exclusion chromatography, sample preparation for microscopy, surface biofunctionalization, scanning probe microscopies (Atomic and Magnetic Force Microscopy, Scanning Tunneling Microscopy/Spectroscopy, Scanning Electron Microscopy), diffraction and scattering techniques (X-Ray Diffraction, Low Energy Electron Diffraction, small angle X ray and neutron scattering), photoemission spectroscopy, X ray spectro-microscopy, ultra high vacuum techniques.
- Good writing and presentation skills;
- Excellent presentation skills for complex topics in multidisciplinary fields (from surface physics to biophysics).

ADDITIONAL INFORMATION

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| Technology Transfer | <ul style="list-style-type: none"> • 2009-2019 Technical support for the ILO activities at Elettra Sincrotrone Trieste concerning scanning probe microscopies and bio-nano-technologies • June – December 2019 Selected as Mentee in the REsearch Beyond Academia Mentoring Programme in the framework of Euraxess Top IV project https://www.euraxess.es/spain/spain-network/euraxess-top-iv/rebeca-mentoring-programme • 23 October 2019 - Participation to the workshop “From a researcher to an entrepreneur” — Padriciano Campus - Area Science Park • September – November 2019 – 30 hours course on Technology Transfer organized by Umans Forma |
| Abilitazione scientifica Nazionale | <ul style="list-style-type: none"> • Abilitazione scientifica nazionale II Fascia Settore concorsuale 02/B1 – Fisica Sperimentale della Materia from 12/04/2017 to 12/04/2023 • Abilitazione scientifica nazionale II Fascia Settore concorsuale 02/D1 – Fisica Applicata, Didattica e Storia della Fisica from 10/05/2019 to 10/05/2025 • Abilitazione scientifica nazionale II Fascia Settore concorsuale 03/A2 – Modelli e metodologie per le scienze chimiche from 10/05/2019 to 10/05/2025 |
| Honours and awards | <ul style="list-style-type: none"> • 2007 Winner of a <i>P.O.R. FSE Abruzzo 2000-2006 Alta formazione</i> bursary for a 6 months research project in a foreign institution (Kavli Institute of Nanoscience, Delft, Netherlands) • 2008 Winner of a <i>P.O.R. FSE Abruzzo 2000-2006 Alta formazione</i> bursary for a 3 months research project in a foreign institution (National Physical Laboratory, London, UK) |
| Teaching, supervising and mentoring activities | <ul style="list-style-type: none"> • 2009 – ongoing Training and supervising activity to undergraduates, PhD students and visiting fellows in the Nanoinnovation Laboratory at Elettra - Sincrotrone Trieste S.C.p.A • 2009 – ongoing Presentation of the research activities of the laboratory and the institute during public events for general audience (i.e. EU Researchers’ Night) and during on-site tours of the Elettra Synchrotron (both for audience with or without scientific background) • 2006 – ongoing Tutoring activities for Master Degree students (3), Bachelor Degree students (3), Post- graduate Diploma Program students (2), PhD students (2) • 26 Jun – 7 Jul 2017 Trainer during practical and theoretical sessions of AFM microscopy – 6th Neuron Technology Summer School, Trieste (Italy) • 20 Jun – 1 Jul 2016 Trainer during practical and theoretical sessions of AFM microscopy – 6th Neuron Technology Summer School, Trieste (Italy) • 8-18 Jun 2015 Trainer during practical and theoretical sessions of AFM microscopy – 5th Neuron Technology Summer School, Trieste (Italy) • 14–25 Jul 2014 Trainer during practical and theoretical sessions of AFM microscopy – 4th Neurobiology Summer School, Trieste (Italy) • 11–22 Nov 2013 Trainer during practical and theoretical sessions of AFM microscopy - Advanced School on Synchrotron Radiation Techniques and Nanotechnology: A Synergic Approach to Life Sciences and Medicine, Stellenbosch (South Africa) |

Publications

H-index (Google Scholar) = 19 H-index (Scopus) = 15

62 contributions/1352 citations

All citations reported below are from Google scholar database

- 1) Perissinotto, F., Senigagliesi, B., Vaccari, L., Pachetti, M., D'Amico, F., Amenitsch, H., Sartori, B., Pachler, K., Mayr, M., Gimona, M., Rohde, E., Caponnetto, F., Cesselli, D., Casalis, L., Parisse, P. Multi-technique analysis of extracellular vesicles: not only size matters *Advances in Biomembranes and Lipid Self-Assembly*, (2020)
- 2) C: Scialò, T. Hoa Tran, G. Salzano, G. Novi, C. Caponnetto, A. Chiò, A. Calvo, A. Canosa, F. Moda, P. Caroppo, V. Silani, N. Ticozzi, A. Ratti, B. Borroni, L. Benussi, R. Ghidoni, G. Furlanis, P. Manganotti, B. Senigagliesi, P. Parisse, R. Brasselet, E. Buratti, G. Legname, TDP-43 real time quaking induced conversion reaction optimization and detection of seeding activity in CSF of amyotrophic lateral sclerosis and frontotemporal dementia patients, *Brain Communications*, , fcaa142
- 3) Furlani, F., Parisse, P., Sacco, P. On the formation and stability of chitosan/hyaluronan-based complex coacervates, *Molecules*, 25 (2020). 1071
- 4) Perissinotto, F., Stani, C., De Cecco, E., Vaccari, L., Rondelli, V., Posocco, P., Parisse, P., Scaini, D., Legname, G., Casalis, L., Iron-mediated interaction of alpha synuclein with lipid raft model membranes, *Nanoscale*, 12 (2020) 7631-7640.
- 5) Vadrucci, M., Cicero, C., Parisse, P., Casalis, L., De Bellis, G. Surface evaluation of the effect of X-rays irradiation on parchment artefacts through AFM and SEM, *Applied Surface Science*, 513(2020) 145881
- 6) Gerratana, L., Basile, D., Toffoletto, B., Bulfoni, M., Zago, S., Magini, A., Lera, M., Pelizzari, G., Parisse, P., Casalis, L., Vitale, M.G., Fanotto, V., Bonotto, M., Caponnetto, F., Bartoletti, M., Lisanti, C., Minisini, A.M., Emiliani, C., Di Loreto, C., Fasola, G., Curcio, F., Beltrami, A.P., Cesselli, D., Puglisi, F. Biologically driven cut-off definition of lymphocyte ratios in metastatic breast cancer and association with exosomal subpopulations and prognosis, *Scientific Reports*, 10 (2020), 7010,
- 7) G. Birarda, A. Delneri, C. Lagatolla, P. Parisse, P. Cescutti, L. Vaccari, R. Rizzo, Multi-technique microscopy investigation on bacterial biofilm matrices. A study on *Klebsiella pneumoniae* clinical strains. *Anal. Bioanal. Chem.* 411 (2019) 7315-7325
- 8) F. Perissinotto, V. Rondelli, P. Parisse, N. Tormena, A. Zunino, L. Almásy, D.G. Merkel, L. Botyán, Sz. Sajti, L. Casalis, GM1 Ganglioside role in the interaction of Alpha-synuclein with lipid membranes: Morphology and structure, *Biophysical Chemistry*, 255 (2019) 106272
- 9) Pinto, G., Parisse, P., Solano, I., Canepa, P., Canepa, M., Casalis, L., Cavalleri, O. Functionalizing gold with ssDNA: novel insights into optical properties via combined spectroscopic ellipsometry and nanolithography measurements *Soft Matter* 15 (2019) 2463 (corresponding author)
- 10) Senigagliesi, B., Penzo, C., Severino, U. L., Maraspini, R., Petrosino, S., Morales-Navarrete, H., Pobega, E., Ambrosetti, E., Parisse, P., Pegoraro, S., Manfioletti, G., Casalis, L., Sgarra, R. The High Mobility Group A1 (HMGA1) Chromatin Architectural Factor Modulates Nuclear Stiffness in Breast Cancer Cells, *International Journal of Molecular Sciences*, 20 (2019) 1422-0067
- 11) D. Cesselli, P. Parisse, A. Aleksova, C. Veneziano, C. Cervellin, A. Zanella, Beltrami AP Extracellular Vesicles: How Drug and Pathology Interfere With Their Biogenesis and Function. *Front. Physiol.* 9 (2018) 1394.
- 12) P. S. Gil, D. J. Lacks, P. Parisse, L. Casalis, M. D. Nkoua Ngavouka, Single-stranded DNA oligomer brush structure is dominated by intramolecular interactions mediated by the ion environment, *Soft Matter*, (2018) DOI: 10.1039/c8sm01743c.
- 13) S. Salentinig, M. Zabara, P. Parisse, H. Amenitsch Formation of highly ordered liquid crystalline coatings – an in situ GISAXS study, *Phys Chem. Chem. Phys.* 20 (2018) 21903
- 14) Merolle L, Sponder G, Sargenti A, Mastrototaro L, Cappadone C, Farruggia G, Procopio A, Malucelli E, Parisse P, Gianoncelli A, Aschenbach JR, Kolisek M, Iotti S Overexpression of the mitochondrial Mg channel MRS2 increases total cellular Mg concentration and influences sensitivity to apoptosis, *Metallomics* 10 (2018) 917
- 15) Altissimo, M., Iacopi, A., Hold, L., Matruglio, A., Zucchiatti, P., Vaccari, L., Bedolla, D.E., Severino, L.U., Parisse, P., Gianoncelli, A., Silicon Carbide membranes as substrate for Synchrotron measurements, *Journal of Instrumentation*, 13 (2018) C05017
- 16) Thickness and Beyond. Exploiting Spectroscopic Ellipsometry and Atomic Force Nanolithography for the Investigation of Ultrathin Interfaces of Biologic Interest, P. Parisse, I. Solano, M. Magnozzi, F. Bisio, L. Casalis, O. Cavalleri, M. Canepa - Book chapter on K. Hinrichs and K.-J. Eichhorn (eds.), *Ellipsometry of Functional Organic Surfaces and*

- Films, Springer Series in Surface Sciences 52, https://doi.org/10.1007/978-3-319-75895-4_4 (first author) citations: 1
- 17) Atomic Force Microscopy analysis of extracellular vesicles, P. Parisse, I. Rago, L. Ulloa Severino, F. Perissinotto, E. Ambrosetti, P. Paoletti, M. Ricci, A.P. Beltrami, D. Cesselli, L. Casalis, *European Biophysical Journal* 46 (2017) 813 (first and corresponding author) citations: 9
 - 18) Site accessibility tailors DNA cleavage by restriction enzymes in DNA confined monolayers, C. Rotella, G. Doni, A. Bosco, M. Castronovo, A. De Vita, L. Casalis, G. Pavan, P. Parisse, *Nanoscale* 9 (2017) 6399 (last and corresponding author) citations: 1
 - 19) Quantification of Circulating Cancer Biomarkers via Sensitive Topographic Measurements on Single Binder Nanoarrays, E. Ambrosetti, P. Paoletti, A. Bosco, P. Parisse, D. Scaini, E. Tagliabue, A. de Marco, L. Casalis *ACS Omega* 2, (2017) 2618 citations: 2
 - 20) Nanoparticle formation of deposited Agn-clusters on free-standing graphene, M. Al-Hada, S. Peters, L. Gregoratti, M. Amati, H. Sezen, P. Parisse, S. Selve, T. Niemann, D. Berger, M. Neeb, W. Eberhardt, , *Surface Science*, 665 (2017) 108 citations: 1
 - 21) DNA-conjugated gold nanoparticles based colorimetric assay to assess helicase activity: a novel route to screen potential helicase inhibitor J. Deka, A. Mojumdar, P. Parisse, S. Onesti, L. Casalis, *Scientific Reports*, 7 (2017) 44538 - citations: 2
 - 22) Atomic Force Microscopy and Spectroscopic Ellipsometry combined analysis of Small Ubiquitin-like Modifier adsorption on functional monolayers, I. Solano, P. Parisse, F. Gramazio, L. Ianeselli, B. Medagli, O. Cavalleri, L. Casalis, M. Canepa *Applied Surface Science* 421 (2017) 722 (co-first and corresponding author) - citations: 1
 - 23) Circulating disease biomarkers detection in complex matrices: real-time, in situ measurements of DNA/miRNA hybridization via Electrochemical Impedance Spectroscopy P. Capaldo, S.R. Alfarano, L. Ianeselli, S. Dalzilio, A. Bosco, P. Parisse and L. Casalis, *ACS Sensors* 1 (2016) 1003 (corresponding author) – citations: 10
 - 24) Direct formation of gold nanorods on surfaces using polymer-immobilised gold seeds M. Kazemian, P. Parisse and L. Casalis, *Beilstein J. Nanotechnology* 7 (2016) 809 – citations: 2
 - 25) Mismatch detection in DNA monolayers by atomic force microscopy and electrochemical impedance spectroscopy M.D. Nkoua Ngavouka, P. Capaldo, E. Ambrosetti, G. Scoles, L. Casalis, P. Parisse *Beilstein J. Nanotechnology*, 7 (2016) 220 (corresponding and last author) citations: 4
 - 26) Investigating organic multilayers by Spectroscopic Ellipsometry: Specific and non-specific interactions of hexahistidine with NTA Self Assembled Monolayers, I. Solano, P. Parisse, O. Cavalleri, F. Gramazio, L. Casalis and M. Canepa *Beilstein J. Nanotechnology* 7 (2016) 544 citations: 2
 - 27) Experimental setups for FEL-based four-wave mixing experiments at FERMI F. Bencivenga, M. Zangrando, C. Svetina, A. Abrami, A. Battistoni, R. Borghes, F. Capotondi, R. Cucini, F. Dallari, M. Danailov, A. Demidovich, C. Fava, G. Gaio, S. Gerusina, A. Gessini, F. Giacuzzo, R. Gobessi, R. Godnig, R. Grisonich, M. Kiskinova, G. Kurdi, G. Loda, M. Lonza, N. Mahne, M. Manfredda, R. Mincigrucchi, G. Pangon, P. Parisse, R. Passuello, E. Pedersoli, L. Pivetta, M. Prica, E. Principi, I. Rago, L. Raimondi, R. Sauro, M. Scarcia, P. Sigalotti, M. Zaccaria and C. Masciovecchio, *J. Synchrotron Rad.* 23 (2016) 132 – citations: 9
 - 28) Silver nanoparticles on nanopatterned LiF(110) surface studied by extreme ultraviolet light scattering, A. Giglia, P. Parisse, P. Miotti, S. Nannarone, *J. Appl. Phys.*, 118 (2015) 235302 – citations: --
 - 29) Spectroscopic Ellipsometry meets AFM nanolithography: about hydration of bio-inert oligo(ethylene glycol)-terminated Self assembled Monolayers on gold, I. Solano, P. Parisse, F. Gramazio, O. Cavalleri, G. Bracco, M. Castronovo, L. Casalis and M. Canepa, *Phys. Chem. Chem. Phys.*, 17 (2015) 28774 – citations: 11
 - 30) FEL-based transient grating spectroscopy F. Bencivenga, R. Cucini, F. Capotondi, A. Battistoni, R. Mincigrucchi, E. Giangrisostomi, A. Gessini, M. Manfredda, I. P. Nikolov, E. Pedersoli, E. Principi, C. Svetina, P. Parisse, F. Casolari, M. B. Danailov, M. Kiskinova & C. Masciovecchio, *Proc. SPIE* 9512 (2015) 951212 – citations: 1
 - 31) Surface passivation Improves the Synthesis of Highly Stable and Specific DNA-Functionalized Gold Nanoparticles with Variable DNA Density J. Deka, R. Mech, L. Ianeselli, H. Amenitsch, F. Cacho-Nerin, P. Parisse and L. Casalis, *ACS Appl. Mater. Inter.* 7 (2015) 7033 – citations: 12
 - 32) Four wave mixing experiments with extreme ultraviolet transient gratings, F. Bencivenga, R. Cucini, F. Capotondi, A. Battistoni, R. Mincigrucchi, E. Giangrisostomi, A. Gessini, M. Manfredda, I. P. Nikolov, E. Pedersoli, E. Principi, C. Svetina, P. Parisse, F. Casolari, M. B. Danailov, M. Kiskinova & C. Masciovecchio, *Nature* 520 (2015) 205 – citations: 85
 - 33) Diagnostic Challenges of Nanomedicine, M. Ganau, A. Bosco, P. Parisse, L. Casalis Book's chapter in "Commercializing Nanomedicine: Industrial Applications, Patents and

- Ethics", Pan Stanford Publishing Pte Ltd, 2015
- 34) A DNA-based nano-immunoassay for the label-free detection of Glial Fibrillary Acidic Protein in multicell lysates A. Bosco, M. Ganau, A. Palma, S. Corvaglia, P. Parisse, L. Fruk, A.P. Beltrami, D. Cesselli, L. Casalis, G. Scoles, *Nanomedicine: Nanotechnology, Biology, and Medicine*, 11, (2015) 293 – citations: 17
 - 35) Determination of average internucleotide distance in variable density ssDNA nano-brushes in presence of different cations species M.D. Nkoua Ngavouka, A. Bosco, L. Casalis, P. Parisse, *Macromolecules*, 47, (2014) 8748 (last author) – citations: 11
 - 36) Glioma-Associated Stem Cells: a Novel Class of Tumour-Supporting Cells Able to Predict Prognosis of Human Low Grade Gliomas, E. Bourkoula, D. Mangoni, T. Ius, A. Pucer, M. Isola, D. Musiello, S. Marzinotto, B. Toffoletto, M. Sorrentino, A. Palma, F. Caponnetto, G. Gregoraci, M. Vindigni, S. Pizzolitto, G. Falconieri, G. De Maglio, V. Pecile, M. Gruaro, G. Gri, P. Parisse, L. Casalis, G. Scoles, M. Skrap, C.A. Beltrami, A.P. Beltrami, D. Cesselli, *Stem cells*, 32, (2014) 1239 – citations: 56
 - 37) Tubular Sn-filled carbon nanostructures on ITO: Nanocomposite material for multiple applications L. D'Arsié, M. Fanetti, C. Cepek, L. Casalis, P. Parisse, L. Gregoratti, M. Amati, G. Di Santo, E. Capria, A. Fraleoni-Morgera, E. Nicolini, A. Goldoni, *Carbon*, 65 (2013) 13 – citations: 4
 - 38) Structural and Energetic Basis for Hybridization Limits in High-Density DNA Monolayers G. Doni, M.D. Nkoua Ngavouka, A. Barducci, P. Parisse, A. De Vita, G. Scoles, L. Casalis and G.M. Pavan, *Nanoscale*, 5, (2013) 9988 – citations: 14
 - 39) Experimental Study of Pristine and Alkali Metal Doped Picene Layers: Confirmation of the Insulating Phase in Multilayer Doped Compounds M. Caputo, G. Di Santo, P. Parisse, L. Petaccia, L. Floreano, A. Verdini, M. Panighel, C. Struzzi, B. Taleatu, C. Lal, A. Goldoni, *J. Phys Chem C* 116 (2012) 19902 – citations: 35
 - 40) In Vitro Enzyme Comparative Kinetics: Unwinding of Surface-Bound DNA Nanostructures by RecQ and RecQ1 P. Parisse, A. Vindigni, G. Scoles and L. Casalis, *The Journal of Physical Chemistry Letters*, 3 (2012) 3532 (first author) – citations: 10
 - 41) Hybridization in Nanostructured DNA Monolayers Probed by AFM: Theory versus Experiment A. Bosco, F. Bano, P. Parisse, L. Casalis, A. DeSimone, C. Micheletti, *Nanoscale* 4 (2012) 1734 – citations: 27
 - 42) Two-Dimensional Enzyme Diffusion Demonstrated in Laterally Confined DNA Monolayers M. Castronovo, A. Lucesoli, P. Parisse, A. Kurnikova, A. Malhotra, M. Grassi, G. Grassi, B. Scaggiante, L. Casalis, G. Scoles, *Nature Communications*, 2 (2011) 297 – citations: 25
 - 43) Bulk phase two dimensional chiral growth of 6,13 pentacenequinone on SiO₂, P. DeMarco, F. Fioriti, F. Bisti, P. Parisse, S. Santucci and L. Ottaviano, *Journal of Applied Physics*, 109 (2011) 063508 – citations: 5
 - 44) 3D island growth of 6,13 Pentacenequinone on silicon oxide and gold, P. Parisse, F. Bussolotti, M. Passacantando and L. Ottaviano, *Journal of Non-Crystalline Solids*, 356 (2010) 2079 (first author) – citations: 3
 - 45) Nanowire directed diffusion limited aggregation growth of nanoparticles, L. Ottaviano, P. Parisse, V. Grossi, M. Passacantando, *Journal of Non-Crystalline Solids*, 356 (2010) 2076 – citations: 5
 - 46) Efficient Water Oxidation at Carbon Nanotube/Polyoxometalate Electrocatalytic Interfaces F.M. Toma, A. Sartorel, M. Iurlo, M. Carraro, P. Parisse, C. Maccato, S. Rapino, H. Amenitsch, B.R. Gonzalez, T. Da Ros, L. Casalis, A. Goldoni, M. Marcaccio, G. Scorrano, G. Scoles, F. Paolucci, M. Prato & M. Bonchio, *Nature Chemistry*, 2 (2010) 826 – citations: 317
 - 47) Local surface morphology and chemistry of SnO₂ thin films deposited by rheotaxial growth and thermal oxidation method for gas sensor application, L. Ottaviano, M. Kwoka, F. Bisti, P. Parisse, V. Grossi, S. Santucci, J. Szuber, *Thin Solid Films*, 517(2009) 6161 – citations: 21
 - 48) Influence of substrate doping on the surface chemistry and morphology of Copper Phthalocyanine ultra thin films on Si (111) substrates, M. Krzywiecki, L. Ottaviano, L. Grzadziel, P. Parisse, S. Santucci, J. Szuber, *Thin Solid Films*, 517 (2009) 1630 – citations: 20
 - 49) Patterning at the nanoscale: Atomic Force Microscopy and Extreme Ultraviolet Interference Lithography, P. Parisse, A. D'Angelo, D. Luciani, S. Santucci, P. Zuppella, P. Tucceri, A. Reale, L. Ottaviano, *Materials Science & Engineering B*, 165 (2009) (first and corresponding author) – citations: 8
 - 50) Photoluminescence submicrometer spatial modulation of 6,13 Pentacenequinone thin films, P. Parisse, D. Luciani, S. Santucci, P. Zuppella, P. Tucceri, A. Reale, L. Ottaviano, *J. Phys. D: Applied Physics*, 41 (2008) 112003 (first and corresponding author) – citations: 6

- 51) Quantitative analysis of electronic transport through weakly coupled metal/organic interfaces A.S. Molinari, I. Gutiérrez Lezama, P. Parisse, T. Takenobu, Y. Iwasa, and A. F. Morpurgo, *Applied Physics Letters*, 92 (2008) 133303 – citations: 12
- 52) XPS study of air exposed CuPc ultra-thin films deposited on Si (111) native substrates, M. Krzywiecki, L. Grządziel, L. Ottaviano, P. Parisse, S. Santucci, J. Szuber, *Materials Science-Poland*, 26 (2008) 287 – citations: 18
- 53) Surface chemistry study of Mn doped germanium nanowires, V. Grossi, P. Parisse, M. Passacantando, S. Santucci, G. Impellizzeri, A. Irrera, L. Ottaviano, *Applied Surface Science*, 254 (2008) 8093 – citations: 10
- 54) Microscopic investigation of the structural and electronic properties of ion implanted Mn-Ge alloys, L. Ottaviano, M. Passacantando, A. Verna, P. Parisse, S. Picozzi, G. Impellizzeri, and F. Priolo, *phys. stat. sol. (a)*, 204 (2007) 136 – citations: 9
- 55) Experiments and theory on pentacene in the thin film phase: Structural, electronic, transport properties, and gas response to oxygen, nitrogen, and ambient air, P. Parisse, S. Picozzi, M. Passacantando and L. Ottaviano, *Thin Solid Films*, 515 (2007) 8316 (first and corresponding author) – citations: 18
- 56) Electronic, morphological and transport properties of 6,13 Pentacenequinone thin films: theory and experiments, P. Parisse, S. Picozzi, L. Ottaviano, *Organic Electronics*, 8 (2007) 498 (first and corresponding author) – citations: 17
- 57) Submicron patterning of a catalyst film by scanning probe nanolithography for a selective chemical vapor deposition of carbon nanotubes, P. Parisse, A. Verna, M. Rinaldi, F. Bussolotti, V. Grossi, M. Passacantando, M. Nardone, S. Santucci, and L. Ottaviano, *Journal of Applied Physics*, 101 (2007) 066201 (first author) – citations: 3
- 58) First-principles approach to the electronic structure in the Pentacene thin film polymorph, P. Parisse, L. Ottaviano, B. Delley, S. Picozzi, *J. Phys.: Condensed Matter* 19 (2007) 106209 (first and corresponding author) – citations: 27
- 59) Surface morphology of Mn⁺ implanted Ge(100): a systematic investigation as a function of the implantation substrate temperature, L. Ottaviano, A. Verna, V. Grossi, P. Parisse, S. Piperno, M. Passacantando, G. Impellizzeri, F. Priolo, *Surface Science*, 601 (2007) 2623 – citations: 35
- 60) Nanometer-scale spatial inhomogeneities of the chemical and electronic properties of an ion implanted Mn-Ge alloy, L. Ottaviano, P. Parisse, M. Passacantando, S. Picozzi, A. Verna, G. Impellizzeri, F. Priolo, *Surface Science*, 600 (2006) 4723 – citations: 14
- 61) Conductivity of the thin film phase of pentacene, P. Parisse, S. Picozzi, M. Passacantando and L. Ottaviano, *Organic Electronics*, 7 (2006) 403 (first and corresponding author) – citations: 34
- 62) Morphological and electronic properties of the thin film phase of pentacene investigated by AFM and STM/STS, P. Parisse, M. Passacantando and L. Ottaviano, *Applied Surface Science*, 252 (2006) 7469 (first and corresponding author) – citations: 17

Conferences, Workshops and Seminars

- 21-22 November 2019 – STSPM19EV - Bologna (IT) (invited talk)
- 16 October 2019 - 16. Linzer Forum Medizintechnik – Linz (At) (invited talk)
- 25-27 July 2019 – Prolin 2019 – Bilbao (ES) – (Oral presentation)
- 20-24 July 2019 – EBSA 2019 – Madrid (ES) – (poster:)
- 5 February 2019 – AFM workshop – Venezia University – Venice (IT) (Invited talk)
- 15-17 September 2018 – Workshop Patologie Cardiometaboliche – Udine (IT) (invited lecture: Microvescicole: metodiche per vescicole extracellulari)
- 10-13 September 2018 – XXIV Convegno Nazionale SIBPA – Ancona (IT) (talk: Extracellular vesicles: new insights from multi-technique analyses)
- 14 December 2017 – SARA 2017 Workshop – Lincoln (UK) (invited talk: Biophysical analysis of Extracellular Vesicles)
- 1-5 October 2017 – FisMat 2017 – Trieste (Italy) (talk: Biophysical analysis of Extracellular Vesicles)
- 18-22 June 2017 – Photonics for Health Summer school 2017 – San Martino di Castrozza (Italy) (Invited talk: Surface functionalization and proper binders choice to optimize biosensing strategies)
- 1-3 March 2017 – Nanoscience at modern X-ray sources – Hamburg (Germany) (poster: Synchrotron Radiation and Free Electron Laser experiments on natural vesicles)
- 20-21 October 2016 - Science Through Scanning Probe Microscopy 2016, Bologna (Italy) (talk: AFM characterization of Extracellular Vesicles)
- 25-28 Aug 2016 – Regional Biophysics Conference 2016 – Trieste (Italy) (talk: AFM characterization of Extracellular Vesicles)
- 18 Mar 2016 –Department of Physics – Università di Genova (Italy) (Invited seminar: The chemical physics of exosome detection)
- 29 Jan - 1 Feb 2016 - XVIII Annual Linz Winter Workshop- Advances in Single-Molecule

- Research for Biology & Nanoscience, Linz (Austria) (talk)
- 29 Jun-2 Jul 2015 – European Conference on Organised Films, Genova (Italy) (talk)
- 3-5 Sept 2014 – Physics meets Biology 2014, Oxford (UK) (poster: Atomic Force Microscopy imaging and characterization of tumour derived exosomes)
- 25-27 Jun 2014 – Surfaces, Interfaces and Functionalization Processes in Organic Compounds and Applications 2nd Workshop, Trieste (Italy) (talk)
- 15-19 Feb 2014– 58th Annual Meeting of the Biophysical Society, San Francisco (USA) (poster)
- 13-14 Dec 2013 - Science Through Scanning Probe Microscopy 2013, Bologna (Italy) (talk)
- 11-22 Nov 2013 - Advanced School on Synchrotron Radiation Techniques and Nanotechnology: A Synergic Approach to Life Sciences and Medicine, Stellenbosch (South Africa) (invited talk)
- 23-27 Sept 2013 - Italian Physical Society XCIX National Congress Trieste (Italy) (talk)
- 22-26 Apr 2013 - Imaginenano 2013 – Bilbao (Spain) (talk)
- 20-25 May 2012 - Gordon Research Conference on Biointerface Science – Les Diablerets (Switzerland) (poster)
- 26-30 Sept 2011 - Italian Physical Society XCVII National Congress L'Aquila (Italy) (talk)
- 23-27 Aug 2011 - 8th European Biophysics Congress, Budapest (Hungary) (talk)
- 30 Jun - 2 Jul 2010 - R3: 1st workshop on DNA replication, recombination and repair, S. Miniato - Pisa (Italy) (poster)
- 27-30 Sept 2009 - Joint Conference on Advanced Materials FNMA & IMIM 09, Sulmona - L'Aquila (Italy) (talk)
- 4-6 Feb 2009 - XI Annual Linz Winter Workshop- Advances in Single-Molecule Research for Biology & Nanoscience, Linz (Austria) (poster)
- 9-12 Sept 2008 - Electroluminescence 2008, Bagni di Tivoli - Rome (Italy) (talk)
- 14-16 Jul 2008 - 5th International Conference on Nanoscience and Nanotechnology, Thessaloniki (Greece) (talk)
- 24-28 Mar 2008 - MRS Spring Meeting, San Francisco (USA) (poster)
- 5-8 Sept 2007 - European Conference on Molecular Electronics, Metz (France) (poster)
- 4-8 Sept 2006 - European Conference on Surface Science, Paris (France) (poster)

Research Projects and Large Scale Facility Proposals

- 19/03/2019 - Seal of excellence for the proposal EXCHANGE 838930 - **Marie Skłodowska-Curie actions call H2020-MSCA-IF-2018 - Proponent**
- 01/02/2017- 01/08/2019 ITAT1036 EXOTHERA project (Interreg Italia-Austria VA) - **Principal investigator**
- Extracellular vesicles/membrane interaction: a multi technique approach” CERIC proposal n. 20187082 – **Proponent**
- On going “Chemical fingerprints of Extracellular vesicles” Proposal n. 2018/0201 at Elettra - Sincrotrone Trieste S.C.p.A - **Proponent**
- “A multi technique approach for Extracellular vesicles biophysical characterization” CERIC proposal n. 20172094 – **Proponent**
- 25/04/2016 – 30/04/2016 “Chemical fingerprints of exosome uptake in living cells” Proposal n. 2015/5372 at Elettra - Sincrotrone Trieste S.C.p.A. – **Proponent**
- 08/09/2015 – 15/09/2015 “Exosomes distribution in cells via X-ray Fluorescence Microscopy” Proposal n. 2015/0099 at Elettra - Sincrotrone Trieste S.C.p.A – **Proponent**
- 02/03/2015 – 08/03/2015 “Exosomes distribution in cells via X-ray Fluorescence Microscopy” Proposal n. 2014/5388 at Elettra - Sincrotrone Trieste S.C.p.A - **Proponent**
- 10/10/2013 – 15/10/2013 “Effect of ionic strength on end-tethered ssDNA and dsDNA molecules on ultra flat gold surfaces” Proposal n. 2013/0073 at Elettra - Sincrotrone Trieste S.C.p.A.- **Proponent**
- 15/03/2012 – 18/03/2012 “Enzymatic reaction on DNA modified gold nanoparticles” Proposal n. 2011/5320 at Elettra - Sincrotrone Trieste S.C.p.A - **Proponent**
- 31/12/2011 – 30/05/2014 AIRC 5 per mille “Application of Advanced Nanotechnology in the Development of Innovative Cancer Diagnostics Tools” - **Collaborator**
- 15/03/2012 – 14/03/2015 FIRB accordi di programma 2011 – “Nanotechnological approaches towards cancer theragnostics” - **Collaborator**

