Fabio Miletto Granozio

Curriculum vitae

ADDRESS

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CURRENT POSITION:

Director of the Institute for Superconductors and Innovative Materials and Devices of the National Research Council, CNR-SPIN.

CNR-SPIN operates in 9 sites in Italy, distributed in six cities: Genova (*headquarters* at Corso Perrone 24 and *"sede di lavoro"* at Università di Genova), Napoli, Salerno, Roma and L'Aquila ("*sedi secondarie*"), Pozzuoli (*"sede di lavoro")* and Chieti ("*unità di ricerca presso terzi*").

EDUCATION AND EMPLOYMENTS

- Starting from Oct. 15, 2020, Research Director (Direttore di Ricerca) for the SPIN Institute of the Consiglio Nazionale delle Ricerche (CNR SPIN), Naples Unit.
- March 1st, 2020 – Oct. 15, 2020, *Senior Scientist* (Primo ricercatore) for the SPIN Institute of the Consiglio Nazionale delle Ricerche (CNR SPIN), Naples Unit.
- 2004 – March 1st, 2020. *Research Scientist* for the SPIN Institute of the Consiglio Nazionale delle Ricerche (CNR SPIN), Naples Unit.
- 1999- 2004, *Research Scientist* for the Istituto Nazionale Fisica della Materia,
- November 1995, May 1997: *Post-doc* position at CEA Grenoble, FR
- May 1997 – September 1999: *Post-doc* in Naples under INFM (Istituto Nazionale per la Fisica della Materia) and University Federico II,
- November 1995: *PhD in Physics* assigned by the University "Federico II" of Naples. PhD Thesis title "Epitaxial YBCO films for grain boundary Josephson junctions"
- January 1991, *Master ("Laurea") Degree in Physics* by the University Federico II" of Naples with score 110/110 cum laude.

FUNDRAISING

- Year 2023 – Principal investigator of the project OMEGA (Oxide MEmbranes hosting and electron GAs), within the programme "Progetti di Rilevante Interesse Nazionale" PRIN 2022. Total project value funded **392k€.**
- Year 2022 – As Director of the CNR-SPIN Institute FMG has raised about 10M€ for his institute within the call of the PNRR (Piano Nazionale di Ripresa e Resilienza) Programme. In particular, his is the scientific responsible for the participation of CNR-SPIN to two research infrastructures, called IRIS and NFFA-DI, for a total amount of **5.150k€**.
- *April 2020 to Oct 2022*, Unit leader (representing the CNR-SPIN Institute) within the national PON project BEST4U "High efficiency bi-facial solar cells", and task leader of the Task "Photoferroelectrics". Total amount for the Unit, **k€ 100** including cofunding

- *Sept. 2019 to Sept 2022,* Unit leader (representing the Naples Unit of the CNR-SPIN Institute) within the National PRIN Project "TWEET – Towards ferroelectricity in two dimensions". Total amount for the Unit, **k€ 250** including cofunding
- *April 2014 to April 2018,* Principal Investigator (Chair) of the *COST Action MP1308 TO-BE "Towards Oxide-Based Electronics"* active under H2020. The Action included over 350 registered participants from 29 different EU countries. The overall EU funding exceeded **k€ 600.**
- *Sept. 2010 to Sept 2014.* Workpackage leader for the programme: *"MAMA: unlocking research potential for multifunctional advanced materials and nanoscale phenomena"* funded within FP7/Capacities, Grant Agreement No. 264098. While the project was headed by the Salerno Unit of CNR-SPIN, under the coordination of Mario Cuoco, I have been in charge of managing about **one half of the grant** that was devoted to the Naples Unit. The overall EU funding exceeded **k€ 2.400**
- *Years 2007 to 2009.* P.I. of the project "Study of precursors dynamics and of growth mechanisms in pulsed laser deposition of epitaxial thin films", granted by Regione Campania **k€ 20**
- Years 2003 to 2006. Scientist in charge for the participation of CNR-INFM to the "Centro di Competenza Nuove Tecnologie" of Regione Campania, managing a grant exceeding **k€ 1.800**

INSTITUTIONAL RESPONSIBILITIES

- *January 2010 to 30 June 2011.* "**Responsabile di Unità" of the Naples Unit of CNR-SPIN** as delegate of the CNR-SPIN Director prof. Ruggero Vaglio.
- *Year 2009.* **Director of INFM-Coherentia** as delegate of the CNR-INFM Director Elisa Molinari. The INFM-Coherentia personnel included 15 units of tenured Researchers and over 50 associated professors. INFM-Coherentia was structured in three units (Naples, Salerno and Rome) and was awarded by INFM an institutional budget of about € 200.000 in year 2009. *Coherentia was stopped within a national rearrangement of Italian Research System that merged the former INFM Institute into CNR.*
- *Years 2002 to 2009.* **Leader of the Research Activity (or "Commessa")** "*Deposition and diagnostics of thin films of innovative materials*", first under Coherentia INFM and then under CNR SPIN.

ORGANIZATION OF SCIENTIFIC EVENTS

In the course of the ***last 10 years****, I contributed, in most cases in a leading role, in the organization of* ***15 scientific events.*** *Some examples of participation to conference scientific committees are also reported.*

Conferences organised as TO-BE Action Chair (average audience: about 120 participants)

- Final Meeting of the TO-BE COST Action, Sant Feliu de Guixols, ES, 12-14 March 2018
- 2017 Fall Meeting of the TO-BE COST Action, Riga, LV, 11-13 September, 2017
- 2017 Spring Meeting of the TO-BE COST Action, Luxembourg, 3-5 April, 2017
- 2016 Fall Meeting of the TO-BE COST Action, Ljubliana, SI, 28-30 September, 2016
- 2016 Spring Meeting of the TO-BE COST Action, Warwick, UK, 6-8 April, 2016
- 2015 Fall Meeting of the TO-BE COST Action, organised as EMRS symposium "Towards Oxide-Based Electronics" Warsaw, PL, 15 – 18 September, 2015
- 2015 Spring Meeting of the TO-BE COST Action, Aveiro, PT, 30th March – 2nd April 2015
- 2014 Fall Meeting of the TO-BE COST Action, Rome, Italy, 22-23 September, 2014

Organization of other conferences and workshops, also as Conference Chair

- Conference Session chair for the Symposium "Thin films and epitaxial growth" at the International Conference on Crystal Growth and Epitaxy, 30 July – 4 August 2023, Naples (Italy)

- Symposium organiser for the CMD2020GEFES 2020 Conference, originally planned in Madrid, Aug. 31 to Sept. 4, 2020 and then held online. Name of the live-streamed symposium ("colloquium") "Oxide heterostructures and interfaces: from fundamentals to applications".
- Conference Chair for the conference "MAMA-Trend: Trends, challenges and emergent new phenomena in multi-functional materials" Sorrento , May 13-16, 2013.
- Symposium organiser for the Symposium *Magneto-transport, spin electronics and magnonic crystals* within the conference JEMS 2012 (Joint European Magnetic Symposia) Parma, Sept, 9-14, 2012
- Conference Chair for the conference "MAMA-SYNT": "*Synthesis and design of multi-functional materials and heterostructures*" Villa Campolieto, Ercolano, Oct. 24-26, 2011
- Symposium organiser for the symposium named "*In situ studies of the structure-property relation of evolving thin films and interfaces*" within the 2010 MRS Fall Meeting.
- Local member of Programme Committee and organiser for the conference "FOXE - Functional Oxides for Electronics", Massa Lubrense, Sorrento (NA), March 25-27, 2009.

Organisation in the role of TO-BE Action Chair of Training Schools

- School "Technologies for Oxide Electronics", Sant Feliu de Guixols, ES, 15-17 March 2018
- International School of Oxide Electronics ISOE2015, October 2015, Cargèse, FR ,12-24 October 2015. The school was co-organised between CNRS and the TO-BE Action.

Scientific committee member for conferences and workshops (some examples from recent year)

- Oxide Superconducting Spintronic Workshop OSS2018 Amalfi SA, Italy, April 11-13, 2018
- International School of Oxide Electronics, Cargese, FR, April 11 - 21, 2017
- ESAS winter school "Novel frontiers in superconducting electronics: from fundamental concepts and advanced materials towards future applications" Pozzuoli (Italy), December 12 – 16, 2016
- UFOX Workshop "Unveiling complex phenomena in Functional OXides", University of Fisciano, Salerno, Italy, 7 to 8 July 2016
- CMD 2016 (Condensed Matter Division (CMD) of the European Physical Society, Groeningen, Sept 5-9), Symposium "2-Dimensional Electron Systems in Complex Oxides"
- Symposium O, Fundamentals of oxide heterostructures, 2015 EMRS Spring Meeting

INVITED TALKS AT CONFERENCES, TALKS IN MAJOR INSTITUTIONS, LECTURES AT TRAINING SCHOOLS

In the course of ***last 10 years*** *I gave about* ***30 invited talks*** *at conferences, workshops and training schools. The list below regards the period 2010- 2019, including some invited talks foreseen in next months.*

- ECOS: International Workshop on electric control of spin transport and spin to charge interconversion, Milan, Italy, on January 22 – 23, 2020, title "*Self-formed LaAlO3/SrTiO3 micro-membranes hosting a 2D electron gas*"
- FISMAT2019, Session "Nanostructures and Nanotechnologies", Catania, IT, *talk to be given on* Sept. 30 – Oct. 4, 2019
- HUAWEI Vision Forum, London, Sept. 24-25, 2019, title "Towards Oxide Electronics"
- ICCGE-19, Keystone, CO, US, *talk to be given on* July 28 - August 2, 2019. Symposium on Epitaxy of complex oxides
- Fusion Conference, 4th Functional Oxide Thin Films for Advanced Energy and Information Technology Conference, Lisbon PT, *talk to be given on* July 17-20, 2019
- EMRS Spring Meeting, Nice, FR, May 27-31, 2019, Symposium on Synthesis, processing and characterization of nanoscale multi functional oxide films VII, title *"Freestanding oxide heterostructure membranes produced by disruptive strain relaxation"*
- Conference SuperFOX Superconductivity and Functional Oxides, 13-15 September 2018, Fisciano, Salerno, Italy, title "*Formation mechanism and atomic engineering of 2-dimensional electron gases at oxide interfaces*".

- Conf. Wolte-13, 13th Workshop on Low Temperature Electronics, September 10 – 13, 2018 in Sorrento, Italy, title "*Emergent oxide memory devices*".
- Conf. TCM2018, 7th international Symposium on Transparent Conductive Materials, Chania, 14-19, October 2018, title "*Magnetism, membranes and voltage/light induced memory effects in 2-dimensional electron gases at oxide interfaces".*
- Conf. CIMTEC 2018, 14th Int. Ceramic. Congress, Symposium CK "Functional Magnetic Oxides", Perugia IT, June 8-14, 2018, title "*Engineering the functional properties of 2-dimensional electron gases at oxide interfaces".*
- Workshop "5th International Workshop on Complex Oxides", Capri, IT, 20-24 May, 2018, title "*Charge Transfers Across Oxide Interfaces Hosting a 2-Dimensional Electron Gas".*
- Conf. "Smart Materials and Surfaces", Paris, FR, 24-28 April 2017, "*2-Dimensional electron gases at oxide interfaces".*
- Conf. "Superstripes", Ischia, IT, 4-10 June, 2017, "*2-Dimensional electron gases at oxide interfaces*".
- Workshop "QUO VADIS", organized by PSI, 16-20 January 2017, title "*2-Dimensional electron gases at oxide interfaces: reversible non-volatile switch under field effect and light*".
- Workshop "Nanoselect NOE", Organised by ICMAB, 21-26 June, 2016, Sant Feliu de Guixols, title "*2D electron gases at oxide interfaces"*
- Workshop "Technologically Relevant Quantum Materials", Padriciano, IT, 19-20 December 2016, title *"2-Dimensional electron gases at oxide interfaces: reversible non-volatile switch under field effect and light"*
- Conf. "Transparent Conducting Materials- TCM", Crete, GR, 9-13 October 2016, title "*2-Dimensional electron gases at oxide interfaces: non-volatile, electrical and optical resistive switching*"
- Satellite TCM Workshop "Wirox", Crete, GR, 9 October 2016, title "*COST Action TO-BE: Towards Oxide-Based Electronics*"
- Conference Superstripes, Ischia, June 23-28, 2016, *Abrupt, non-volatile metal-insulator transition in oxide interfaces controlled by gate voltage and light",*
- Photon Science Seminars of the Paul Scherrer Institute, June 24, 2016, title: "*2D electron gases at oxide interfaces*"
- Symposium L, EMRS Fall Meeting, Warsaw, Sept 15, 2015, title *"Towards oxide-based electronics",*
- Superstripes Conference, Ischia, June 14, 2015*,* title *"About superconductivity and magnetism in oxide interfaces",*
- Symposium SS, 2015 MRS Spring Meeting, San Francisco, April 8, 2015, title "*Building a Band Diagram for Oxide Interfaces Hosting a 2D Electron Gas*",
- Symposium "Synthesis, Processing and Characterization of Nanoscale Multi Functional Oxide Films V, within the European Materials Research Society Spring Meeting, title *"Addressing oxygen and cation nonstoichiometry in the growth of 2-DEGs at oxide interfaces",* Lille, May 12, 2015.
- Symposium "Multifunctional Oxides" within the MS&T (Materials Science and Technology) Conference, Pittsburg 12-16 Ottobre, 2014. Title "Addressing the Origin of Conductivity in Two Dimensional Electron Gases at Oxide Interfaces"
- SIF Conference (Italia Physical Society), Pisa, Italy, Sept. 22-26, 2014. Title: "*Addressing the origin of conductivity in two dimensional electron gases at oxide interfaces*".
- International School of Physics and Technology of Matter, Otranto (LE), Sept. 15 – 19, 2014. Title: "*Pulsed laser deposition with real-time growth monitoring for atomically controlled fabrication of oxide heterostructures*".
- SPS (Swiss Physical Societly) Annual Meeting, Friburg, June 30 – July 2, 2014. Title: "*Addressing the Origin of Conductivity in Two Dimensional Electron Gases at Oxide Interfaces*"
- Meeting of the PSI Spectroscopy Group, Flumsemberg, March 7-11, 2013. Title: "*Electrostatics and photoresponse of oxide-based polar-nonpolar interfaces*"
- Symposium K: Oxide Interfaces within the 2010 MRS Fall Meeting, Hynes Convention Center, 01 Dec. 2010, Boston MA. Title "*Advanced Spectroscopies on Novel Conducting Interfaces.*"
- Presentation of CNR-INFM Coherentia under request of the CNR-INFM Director Elisa Molinari for the CNR Evaluation Panel. Title: "*The CNR-INFM Coherentia national laboratory*"

In the course of the ***5 years*** *preceding the Director's mandate I gave nearly* ***30 talks*** *under invitation of major international institutions.*

Institutions in which I have been delivering lectures under invitation in last 5 years include: *Forschungszentrum Jülich* (PGI Seminar), *Twente University,* Mesa Institute, Inorganic Materials Science Department, NL; *Kavli Institute of Nanoscience,* Delft University of Technology; *Cornell University* Department of Materials Science and Engineering, NY, US; *Stanford University* Physics Department, CA, US; *University of Pittsburg* "PITT", PS, US; *Oak Ridge National Lab*, TN, US; *Technical University of Denmark* – DTU (several times), DK; *Unitè Mixte CNRS-Thales*, Paris, FR; *Max Planck Institute Stuttgart*, DE; *Chalmers University of Technology*, SE*; ICMAB Institut de Ciència de Materials de Barcelona*, ES, IMDEA *Madrid Institute for Advanced Studies of*

Materials, ES; LIST *Luxembourg Institute for Science and Technology* LU, *Tuebingen University* (twice, both at Physics and Chemistry Department) DE; *IFW Dresden*, DE; *Paul Scherrer Institute* (several times) CH, *Institute of Electronic Structure and Laser* IESL FORTH Crete, GR; JSI - *Institut "Jozef Stefan"* Ljubliana, SI;

COMMISSIONS OF TRUST

Evaluation of funding applications for different international institution

- 2019 Department of Energy (US)
- 2018 ETH Zurich Postdoctoral Fellowship Program (CH)
- 2017 COST, EU Cooperation in Science and Technology. Evaluator of new COST Action applications
- 2016 Swiss National Foundation SNF(CH)
- 2013, University of Warwick, Research Development Fund Strategic Awards 2013/14 (UK),
- 2009. Dutch Technology Foundation STW, Programme STW "Perspectief - Building on Transient Plasmas (BTP) 2009 STW (NL)

Evaluator for the assignment of research/ academic positions

- 2018, Researcher Position for Nanomaterials for Energy Applications at DTU Energy, Technical University of Denmark, DK
- 2017, Senior Researcher for Chemical Coatings of Energy Materials, Technical University of Denmark
- 2015, Oavlönad Docent position, Chalmers University of Technology

Board member of scientific institutions

Board member in years 2005 and 2006 for the "Centro di Competenza Nuove Tecnologie" of Regione Campania a Consortium of public research institutions endowed with 25M€ of budget from Regione Campania.

Referee for scientific journals

Regular activity as a referee for several highly ranked journals of major publishing groups, including Nature (Nature Communication), Wiley (Advanced Materials series), ACS (Nanoletters), APS (Phys. Rev. Lett) and more.

DISSEMINATION AND CONTACT TO INDUSTRY

In Sept. 2019 I have been invited by Huawei to their Vision Forum, held in London, to give a talk about oxide electronics. Discussion about possible collaborations stopped during the COVID-19 pandemic.

The Oxide Technology Roadmap, stems from the TO-BE COST Action I chaired. Besides providing a self-analysis of the global community working on oxides on the technological outputs of our research, aims to have an impact as a major dissemination tool. My ambition is that this document can be used worldwide by scientists as a tool helping them to foster both privates and public investments in oxide-based science and technology. Citation and download statistics confirm that the Oxide Technology Roadmap is becoming an influential paper.

Contacts with industry during my career include medium and big companies, as STMicroelectronics (IT and FR), IBM Zurich (CH), and SINTEF (NO) and smaller company as TSST BV (NL), SolMates BV (NL), Organic Spintroics (IT), Acreo (SE) and ChromoGenics (SE).

AWARDS

- 2017 Received "*abilitazione*" (habilitation) for Full Professorship in the Italian University System.

GUEST EDITOR ACTIVITY

- Applied Surface Science: Towards Oxide-Based Electronics: a Roadmap**,** Guest Editor and leading/corresponding author Appl. Surf. Sci **482**, 1 (2019)

- MRS Bullettin, Dec 2013, Special issue on Functional Oxide Interfaces, Guest Editor
- MRS Symposium Proceedings, Volume "Advances in Spectroscopy and Imaging of Surfaces and Nanostructures", Volume 1318, Cambridge University Press

FILED PATENTS

- Sept. 2020 – A patent named "Process for fabricating free-standing membranes of perovskite LAO/STO heterostructures" was submitted in *(Domanda di brevetto per invenzione industriale N° 102020000020317 a nome CONSIGLIO NAZIONALE DELLE RICERCHE*) Inventors: Fabio Miletto Granozio and Alessia Sambri. The patent is related to the paper Adv. Funct. Mater. 2020, 1909964 DOI 10.1002/adfm.201909964 also published in Sept. 2020
- Year 1997 - Patent named "Tecnica di realizzazione di giunzioni ad effetto Josephson realizzate mediante la crescita di un film biepitassiale di YBCO su un substrato di SrTiO3 (110) *(Josephson junctions fabrication technique based on a bi-epitaxial YBCO film on a (110) SrTiO3 substrate)".* Patent number: IT1276587; Publication date: 1997-11-03; Inventors: Miletto Granozio Fabio; Di Chiara Sandro; Lombardi Floriana; Tafuri Francesco; Valentino Massimo; Filed by: Consiglio Nazionale Ricerche (IT)

EDUCATION, EVALUATION AND SUPERVISION OF STUDENTS AND EARLY CAREER INVESTIGATORS.

Courses for undergraduate and master students

As being hired by CNR, a non-academic institution, teaching is not part of my regular duties. Therefore, in spite of being fully confident in my teaching skills and of having been fully engaged in the course of my activity into education and career development of young scientists, my list of given university courses is not as long as for colleagues hired at universities.
I gave some courses based on an external contract with University Federico II of Naples. Details are reported below:

- 100 hours 1st-year course on Mechanics and Thermodynamics ("Fisica I") for the Faculty of Engineering, Degree in Informatics Engineering, University "Federico II" on year 2000, based on a one-year professorship contract from the University "Federico II".
- 48 hours (6 ECTS) Master course in English, named "Solid State Physics", for the Master in Mathematical Engineering, University "Federico II", Napoli, March-June 2019
- An equivalent course this year was suspended due to the COVID-19 pandemic

Despite not working for a University Institution, I dedicated a large fraction of my career to the education, evaluation and career development of students and young researchers, as clarified below.

Participation to international PhD Committees.

- Dalal Fadil, L'université de Caen Normandie. 2011. Supervisor : Dr. Laurence Mechin.
- Nicolina Tuzla, Chalmers University of Technology, Goteborg, SE. Supervisor Prof. Eva Olsson
- Uwe Treske, Fakultät Mathematik und Naturwissenschaften der TU Dresden, 2015. Supervisor: Prof. Bernd Büchner.
- Eduard Lesne, Université Pierre et Marie Curie. 2015. Supervisor: Prof. Agnes Barthelemy.
- Felix Trier, Technical University of Denmark, 2016. Supervisor: Prof. Nini Pryds.
- Mateusz Scigaj, Universitat Autonomoma de Barcelona, 2016. Supervisor: Prof. Gervasi Herranz.
- Dennis Valbjorsson, Technical University of Denmark, 2017. Supervisor: Prof. Nini Pryds.
- Merlin von Soosten, Technical University of Denmark, 2019, Supervisor: Prof. Nini Pryds.
- Saul Estandia, Universitat Autonomoma de Barcelona, 2021. Supervisor: Prof. Florencio Sanchez.
- Ralph El Hage, Université Paris-SaclayJavier, 2021, Supervisor : Dr. Javier Villegas

Tutoring of Master students:

- Davide Maccariello (*now R&D Physicist at Saint-Gobain Research Paris*): thesis title "Gas elettronici all'interfaccia tra ossidi isolanti", date 18/06/2009
- Emilia Esposito: thesis title "Crescita di film sottili epitassiali di manganiti per ablazione laser impulsata", date

21/03/2007

- Aldo Oropallo: thesis title "Deposizione e caratterizzazione delle proprietà strutturali, magnetiche e di trasporto di film sottili epitassiali di La0,67Sr0,33MnO3", date 24 marzo 2004
- Fortuna Bevilacqua, (*now Scientist at ST Microelectronics, Naples*) thesis title "Film sottili epitassiali di CaRuO3: proprietà strutturali ed elettroniche", date 14/03/2001

Tutoring ("Relatore) of PhD Students:

- Dr. Mohammed Riaz (*now Associate Professor in Pakistan)*, "Transport Properties of Transition Metal Oxide Thin Films and Interfaces under Light Irradiation", PhD School: Dottorato di Ricerca in Fisica Fondamentale ed Applicata, dell'Università di Napoli Federico II http://www.fedoa.unina.it/8951/,
- Dr. Milan Radovic (*now Scientist at PSI, CH and Adjunct Professor at DTU, DK*), "Low dimensional Ti-oxide based structures: surfaces, interfaces and ultrathin films of SrTiO 3 and TiO2", PhD school "Tecnologie Innovative per Materiali, Sensori e Imaging" della Università di Napoli Federico II, http://www.fedoa.unina.it/3474/1/Radovic_Milan.pdf,
- Dr. Alessia Sambri (*now Scientist at CNR, IT)*, tesi dal titolo "Pulsed laser deposition of complex transition metal oxides: plume expansion and film growth", PhD school "Tecnologie Innovative per Materiali, Sensori e Imaging" della Università di Napoli Federico II http://www.fedoa.unina.it/2036/;
- Dr. Fabrizio Ricci (*Now Project Manager at Pirelli LABS)*, "Studio della struttura e delle superfici di film epitassiali di ossidi complessi", PhD School Dottorato Di Ricerca in Fisica Fondamentale ed Applicata, XIV Ciclo,

Supervised post-docs

- Dr. Anita Guarino, 18 month contract starting on 01/10/2017,
- Dr. Alessia Sambri (*now Scientist at CNR, IT)*, 12 month contract starting on 01/01/2016,
- Dr. Alessia Sambri, 12 month contract starting on 01/02/2015,
- Dr. Musa Mutu Can (*now Associate Professor in Turkey)*, 12 month contract starting on 03/11/2013,
- Dr. Amit Kumar Khare (*now Associate Professor in India)*, 17 month contract started on 20/05/2013,
- Dr. Emiliano Di Gennaro (*now Associate Professor in Naples*), 30 month contract stated on 01/03/2011, Italy
- Dr. Paolo Perna (*now Scientist at IMDEA, Madrid, ES)*, 6 months contract started on 01/03/2008,

Evaluator for the appointment of candidates to permanent research/academic positions

- 2018, Researcher Position for Nanomaterials for Energy Applications at DTU Energy, Technical University of Denmark, DK
- 2017, Senior Researcher for Chemical Coatings of Energy Materials, Technical University of Denmark
- 2015, Oavlönad Docent position, Chalmers University of Technology

Organization of Training Schools.

Within the TO-BE COST Action, I prompted and followed as Action Chair the organization of two training schools:

- ISOE2015, International School of Oxide Electronics 2015 (a 12 days school), 12−24 October 2015, Cargèse, FR.
- International School "Technologies for Oxide Electronics", a three days school, 15-17 March 2018: Sant Feliu de Guixols, ES.

I also was in the scientific committee of

- ISOE2017, International School of Oxide Electronics, April 11 - 21, 2017 Cargese, FR

Lectures given at International Training Schools.

- ISOE2015, International School of Oxide Electronics 2015, 12−24 October 2015, Cargèse. Speaker and organiser. Lecture named "2DEGs at oxide interfaces"
- School "New frontiers in down−scaled materials and devices: realization and investigation by advanced methods", Otranto (Italy) 15−20 September 2014. Lecture named "Pulsed laser deposition with real−time growth monitoring for atomically controlled fabrication of oxide heterostructures".
- Training Course in the Physics of Strongly Correlated Systems, Vietri, IT, 2-13 October 2017. Three 2,5-hour lessons respectively named: 1) Growth of epitaxial thin films and heterostructures: physical mechanisms, deposition techniques, in-situ monitoring and strain effects; 2) Two-Dimensional electron gases at oxide interfaces; 3) Oxide Technology Roadmap: Discussion on the possible applications of oxide films and heterostructures.
- Lectures held at the MESA Institute, Inorganic Materials Science Group of Twente University (NL). In the week of November 12-16, 2018 I was invited to give four lectures, two ad an advanced level and two at a tutorial level for

PhD students. The two tutorial lectures were: "2-dimensional electron gases at oxide interfaces" (Nov. 13) and "Towards Oxide-Based Electronics: Possible applications of oxide films and heterostructures" (Nov. 15).

SCIENTIFIC PUBLICATIONS

FMG authored or coauthored over 140 publications on journals including Nature, Nature Materials, Nature Communication, Physical Review Letters, Advanced Materials, Advanced Functional Materials, Nanoletters, ACS Applied Materials & Interfaces. The Web of Science H-Index is 27.

ResearcherID http://www.researcherid.com/rid/R-9662-2017