

Trento, lì 24 maggio 2022

**Oggetto: nomina della Commissione tecnica nella gara europea a procedura aperta per la fornitura di un sistema di cleaning da installare nel laboratorio Clean Room Detector della Fondazione Bruno Kessler per lo sviluppo della facility "3D Integration" nell'ambito del progetto "IPCEI Microelettronica" - CUP: B61B19000870005 – CIG 916304933E**

### IL PRESIDENTE

- **PREMESSO** che con Determinazione a contrarre Prot. 21/2022 del 07.04.2022 il Presidente della Fondazione ha dato avvio alla gara europea a procedura aperta per la fornitura di un sistema di cleaning, con applicazione del criterio dell'offerta economicamente più vantaggiosa individuata sulla base del miglior rapporto qualità/prezzo, ai sensi degli art. 95 del D.Lgs. n. 50/2016 e art. 17, comma 1, della L.P. 2/2016 e 95 del D.Lgs. 18 aprile 2016, n. 50;
- **CONSIDERATO** che l'art. 77 del D.Lgs 50/2016 prevede che per i settori ordinari, quando il criterio di aggiudicazione è quello dell'offerta economicamente più vantaggiosa, la valutazione delle offerte dal punto di vista tecnico ed economico è affidata ad una commissione giudicatrice;
- **ATTESO** che allo stato attuale non risulta ancora operativo l'Albo dei commissari di gara di cui all'art. 21 della L.P. 2/2016, né quello istituito presso ANAC, in quanto la norma che disciplina l'operatività dell'albo dei componenti delle commissioni giudicatrici è sospesa fino al 30 giugno 2023, con ciò rimanendo in vigore la disposizione transitoria di cui all'art. 216 del D.Lgs. 50/2016 per cui *"Fino alla adozione della disciplina in materia di iscrizione all'Albo di cui all'articolo 78, la commissione giudicatrice continua ad essere nominata dall'organo della stazione appaltante competente ad effettuare la scelta del soggetto affidatario del contratto, secondo regole di competenza e trasparenza preventivamente individuate da ciascuna stazione appaltante"*;
- **CONSIDERATO** che il termine per la presentazione delle offerte è scaduto in data 20 maggio 2022 alle ore 12.00 e che, pertanto, è possibile procedere alla nomina dei commissari e alla costituzione della commissione;
- **PRESO ATTO** che gli operatori economici partecipanti alla gara sono i seguenti:
  - G. GAMBETTI KENOLOGIA Srl
- **ATTESO** che la commissione deve essere composta da un numero dispari di componenti, in numero massimo di cinque, esperti nello specifico settore cui si riferisce l'oggetto del contratto (articolo 77, comma 2, del D.Lgs. 18 aprile 2016, n. 50);
- **CONSIDERATO** che tra il personale interno della Fondazione vi è un numero sufficiente di esperti muniti di qualificazione, funzioni e ruoli per la completa costituzione della Commissione, così costituita:
  - Cristian Collini

- Laura Parellada Monreal
  - Matteo Valt
- **CONSIDERATO** che, qualora taluno dei suddetti componenti della commissione tecnica sia impossibilitato a presenziare alla stessa, il Presidente della Commissione provvederà a surrogarlo all'apertura della seduta disponendo menzione in calce al verbale di gara;
- **RITENUTO** di dover allegare al presente atto i *curricula* dei componenti la Commissione per la pubblicazione del presente atto nella sezione "Amministrazione trasparente", ai sensi dell'art. 29 comma 1 del D.Lgs. 18 aprile 2016, n. 50 e con l'applicazione delle disposizioni di cui al D.Lgs. 14 marzo 2013, n. 33;
- **STABILITO** che, per l'espletamento dell'incarico, non è previsto alcun compenso aggiuntivo per i componenti della suddetta Commissione;

#### **DETERMINA**

1. che la premessa forma parte integrante e sostanziale del presente provvedimento;
2. di nominare la Commissione di gara per l'affidamento della fornitura di un sistema di cleaning secondo quanto definito nei documenti di gara, nelle persone di:
  - Cristian Collini
  - Laura Parellada Monreal
  - Matteo Valt
3. di demandare alla Commissione lo svolgimento di tutte le operazioni valutazione delle offerte tecniche;
4. di dare atto che, per l'espletamento dell'incarico, non è previsto alcun compenso aggiuntivo per i componenti della suddetta Commissione;
5. di disporre la pubblicazione del presente atto e dei *curricula* dei componenti la Commissione nella sezione "Amministrazione trasparente" del sito della Fondazione in adempimento all'art. 29 del vigente Codice dei Contratti.

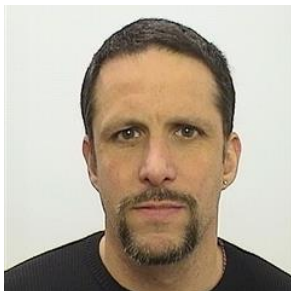
Il Presidente

Prof. Francesco Profumo

(f.to digitalmente)

## PERSONAL INFORMATION

## Cristian Collini



 via Sommarive 18, 38123 Trento (Italy)



## Researcher

## WORK EXPERIENCE

01/2022-Present

## Researcher

**Micro-Nano characterization and fabrication Facility Group, SENSORS AND DEVICES Center, Fondazione Bruno Kessler (FBK), Trento (Italy).**

- Developing new technological steps and processes modules devoted Micro-Nano fabrication.

01/2021-12/2021

## Researcher

**Microsystems Technology Group, Center for Materials and Microsystems, Fondazione Bruno Kessler (FBK), Trento (Italy).**

- Design and fabrication of innovative MEMS and Bio-MEMS sensor devices based on silicon compatible technology and 3D Printing.

01/2018-10/2019

## Researcher

**Silicon Sensor Technology, department of Microsystems and Nanotechnology, SINTEF, Oslo (Norway).**

- MEMS Expert for fabrication of innovative MEMS and Bio-MEMS sensor devices based on silicon compatible technology in a clean room with resolution to nanometers on 6" size silicon wafers.
- Developing semiautomated procedure of testing and characterizations - morphological & electrical
- Testing and characterization of fabricated devices by morphological analyses (SEM, Profilometers, imaging, etc.).
- Main activities:
  - Design and Fabrication of Inertial MEMS Gyrometer – zero level packaging, metrology, C-Soi. In the framework: MUPIA HORIZON 2020 Programme, Clean Sky II, Grant no. 785337. (<https://www.sintef.no/mupia/>)
  - Proposing new projects and co-writing proposals: eg. Project: MolecuAr harvesTing with electroporation, microfluidics and nanoparticles for dIagnoSticS and thErapy of heterogeneous solid tumours. (<https://www.era->

learn.eu/network-information/networks/euronanomed-iii/joint-transnational-call-2020/molecular-harvesting-with-electroporation-microfluidics-and-nanoparticles-for-diagnostics-and-therapy-of-heterogeneous-solid-tumours)

- Acquisition and validation of morphological and geometrical data: eg. Gage R&R Study, ANOVA gauge R&R, etc.

06/2002-12/2018 **Researcher**

**Microsystems Technology Group, Center for Materials and Microsystems, Fondazione Bruno Kessler (FBK), Trento (Italy).**

- Design (with L-Edit tanner tools EDA) and fabrication of innovative MEMS and Bio-MEMS sensor devices based on silicon compatible technology in a clean room ISO 3/5 (class 10, 100, 1000) with resolution from micrometric to few hundred nanometers on 4" and 6" size silicon/quartz wafers.
- Testing of fabricated devices (RF – radio frequency) MEMS switches, integrated microphones, micro fabricated electrode arrays, microfluidic and flow sensors) by morphological analyses (SEM, Profilometers, imaging, etc.) and electrical testing.
- Main activities:
  - Evaluation of design rules and alignment markers for general microfabrication of devices
  - Design and measurement of test structures for quality control of microfabrication processes
  - Design and fabrication of Electrochemical sensors based on microelectrode structures, and arrays for neural networks study, microelectrode arrays for cell electroporation, voltammetry microelectrodes for agro food, biomedicine and environmental analyses
  - Design and fabrication of Flow sensors for space application (installed on Gaia satellite of ESA – European Space Agency)  
[http://www.esa.int/Our\\_Activities/Space\\_Science/Gaia](http://www.esa.int/Our_Activities/Space_Science/Gaia))
  - Design and fabrication of package, reservoirs, microfluidics by soft lithography and hot embossing with polymeric materials like COP (Cyclic Olefin Polymer), PDMS (Polydimethylsiloxane), SU8 (epoxy-based negative photoresist) and Quartz or Silicon
  - Implementation of CMOS technology for fabrication of Tactile sensors with piezoelectric materials poly[(vinylidene fluoride-co-trifluoroethylene) (PVDF TrFE)
  - Design and fabrication of memristive devices for adaptive electronics and neuroscience applications (<http://www.bo.cnr.it/imem-old/Madelena/drupal-7.22/>)
  - Development and implementation of technological steps for flexible devices on polymeric substrates, silicon and SOI (Silicon On Insulator) wafers.
  - Silicon Micro Nebulizer for domestic insecticide application for commercial partners (Zobe Group <http://www.zobe.com/>)
  - Design and fabrication of electronic interfaces for preliminary test and characterization of fabricated devices (e.g. flow sensors, RF-Micro-switch and

Microphones)

03/2007–05/2007

**Teaching activity**

University of Trento, Trento (Italy)

- Teaching “bioelectronic systems” class to graduate students of “Master di Secondo Livello in Nano e MicroSistemi Elettromeccanici (NEMS/MEMS)”

▪

01/2007

**Other research activity***Department of Industrial Engineering*, University of Trento, Trento (Italy) in collaboration with Prof. Gian Franco Dalla Betta

- Development of technological steps for isotropic etching of quartz wafers to realize microfluidic part of optical and electrochemical sensors for biomedical applications

**EDUCATION AND TRAINING**

12/2008–3/2011

**Ph.D. in Nanotechnology**

University of Genova (Italy)

Thesis: "Study and development of new technologies for in-vitro cell analysis Microsystems"

09/1995–05/2002

**Master degree in Physics**

University of Trento, Trento (Italy)

Thesis "Influence of charge in Silicon Nitride layers on the stability and performance of Ion Sensitive Effect Transistor sensor (Influenza della carica nel Nitruro di Silicio sulla stabilità della risposta di un sensore ISFET) "

06/2004

Ph.D. in Nanotechnology, 2<sup>nd</sup> European School of Neuro-engineering "Massimo Grattarola" Genova 9-12

June 2004

University of Genova (Italy)

Thesis: "Study and development of new technologies for in-vitro cell analysis Microsystems"

"2<sup>nd</sup> European School of Neuroengineering "Massimo Grattarola" Genova 9- 12 Giugno 2004**PERSONAL SKILLS**

Languages

Italian (mother tongue)

English (fluent)

**Selected Publications****Selected publication from a total of 29 journal papers, 82 conference papers/abstracts/posters and 1 patent. (<https://orcid.org/0000-0001-8975-0008>)**

- Guido Sordo, Cristian Collini, Sigurd Moe, and Daniel Nilsen Wright. Wafer bonding process for zero level vacuum packaging of MEMS. 2020 IEEE 8th Electronics System-Integration Technology Conference (ESTC), DOI: 10.1109/ESTC48849.2020.9229871

- Guido Sordo, Cristian Collini, Sigurd Moe, and Daniel Nilsen Wright. Through Silicon Vias in MEMS packaging, a review. NordPac 2019, URI: <http://hdl.handle.net/11250/2637875>
- Rangra, Kamaljit, Margesin, Benno, Lorenzelli, Leandro, Giacomozzi, Flavio, Collini, Cristian, Zen, Mario, Soncini, Giovanni, Laura del Tin, Roberto Gaddi (2005). Symmetric toggle switch—a new type of rf MEMS switch for telecommunication applications: Design and fabrication. SENSORS AND ACTUATORS. A, PHYSICAL, vol. 123-124, p. 505-514, ISSN: 0924-4247, doi: 10.1016/j.sna.2005.03.035
- Antonella Benvenuto, Guarnieri, Vittorio, Lorenzelli, Leandro, Collini, Cristian, Decarli, Massimiliano, Adami, Andrea, Potrich, Cristina, Lunelli, Lorenzo, Canteri, Roberto, Pederzoli, Cecilia (2008). Fabrication of a MEMS-based separation module for liquid chromatography. SENSORS AND ACTUATORS. B, CHEMICAL, vol. 130, p. 181-186, ISSN: 0925-4005, doi: 10.1016/j.snb.2007.07.111
- Cristian Collini, Elisa Morganti, Romina Cunaccia, Lara Odorizzi, Cristina Ressa, Leandro Lorenzelli, Alessandro De Toni, Giorgio Marinaro, Mauro Borgo, M. Maschietto (2009). Fabrication and characterization of a fully integrated microdevice for in-vitro single cell assays. PROCEDIA ENGINEERING, vol. , ISSN: 1877-7058
- Ravinder S. Dahiya, D. Cattin, A. Adami, C. Collini, L. Barboni, M. Valle, L. Lorenzelli, R. Oboe, G. Metta, F. Brunetti (2011). Towards Tactile Sensing System on Chip for Robotic Applications. IEEE SENSORS JOURNAL, vol. XX, p. 1-11, ISSN: 1530-437X
- Mattia Marelli, Giorgio Divitini, Cristian Collini, Luca Ravagnan, Gabriele Corbelli, Cristian Ghisleri, Antonella Gianfelice, Cristina Lenardi, Paolo Milani, Leandro Lorenzelli (2011). Flexible and biocompatible microelectrode arrays fabricated by supersonic cluster beam deposition on SU-8. JOURNAL OF MICROMECHANICS AND MICROENGINEERING, ISSN: 0960-1317
- E. Morganti, C. Collini, R. Cunaccia, A. Gianfelice, L. Odorizzi, A. Adami, L. Lorenzelli, E. Jacchetti, A. Podestà, C. Lenardi, P. Milani (2011). A dielectrophoresis-based microdevice coated with ns-TiO2 for separation of particles and cells. MICROFLUIDICS AND NANOFUIDICS, vol. 10, p. 1211-1221, ISSN: 1613-4982
- G Baldi, S Battistoni, G Attolini, M Bosi, C Collini, S Iannotta, L Lorenzelli, R Mosca, J S Ponraj, R Verucchi, V Erokhin (2014). Logic with memory: and gates made of organic and inorganic memristive devices. SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol. 29, ISSN: 0268-1242, doi: 10.1088/0268-1242/29/10/104009
- Prusakova V., Collini C., Nardi M., Tatti R., Lunelli L., Vanzetti L., Lorenzelli L., Baldi G., Chiappini A., Chiasera A., Ristic D., Verucchi R., Bortolotti M., Dirè S (2017). The development of sol-gel derived TiO2 thin films and corresponding memristor architectures. RSC ADVANCES, vol. 7, p. 1654-1663, ISSN: 2046-2069, doi: 10.1039/c6ra25618j
- Collini, Cristian, Antonella Benvenuto, Pedrotti, Severino, Lorenzelli, Leandro, Amedeo Masci, M. Ilie, L. Nardi, Roberto Pilloton (2007). Quartz-based multielectrode array for analytical diagnostics. In: The 8th workshop on biosensors and bioanalytical micro-Techniques in environmental and clinical analysis. Taylor & Francis, Goa, India, 03/10/2007 - 06/10/2007
- Biazzi, Leonardo Artur, Collini, Cristian, Guarnieri, Vittorio, A. Lago, R. Marchiori, Gottardi, Gloria, Morganti, Elisa, Lorenzelli, Leandro (2009). Droplet and Dielectrophoresis deposition of single-wall carbon nanotubes. In: Proceedings of Nanotechnology 2009. IEEE-NANO 2009. p. 575-578, ISBN: 9781424448326, Genoa, Italy, 26-30 July 2009
- Collini, Cristian, Morganti, Elisa, Odorizzi, Lara, Ressa, Cristina, Lorenzelli, Leandro, Coppedè, Nicola, A. B. Alabi, Iannotta, Salvatore, L. Vidalino, P. Macchi (2010). FUNCTIONALIZED MICROELECTRODES ARRAYS WITH INTEGRATED MICROFLUIDIC CHANNELS FOR SINGLE-SITE MULTIPLE TRANSFECTIONS. In: Atti GNB 2010, Secondo Congresso Nazionale di Bioingegneria. Torino, 8-10/07/2010

#### Organisational / managerial skills

- Establishment of interpersonal links and team work (in multi-cultural and international environments);
- Management and coordination of the working team, effort optimization in light

- of the expected objectives;
- Flexibility and fast familiarization with new work environments;
- Strongly oriented to reach the expected results through the exercise of problem solving, time and priorities management, as well as through risk management (i.e. definition/actuation of mitigation and contingency plans);
- Curious and willing to acquire new competences, even if not strictly related to the main area of interest.

## Job-related skills

**TECHNICAL EXPERIENCE**• **Instrumentation**

Optical profilometers ( Leica, Zygo)

Mechanical profilometer (KLA-Tencor)

Electron beam evaporator (Ulvac EBX-16C with e-gun Ferrotec EV S-6)

Wafer bonding (AML, EVG, Suss)

Scanning electron microscopy (Tescan, QuantaFEI)

Plasma etching (Tegal, Matrix , Tepla)

Electrical multi parametric testing

Manual mask aligner Suss MicroTec MA/BA 6

• **Benchwork**

Wet isotropic and anisotropic etching (TMAH)

Vapor HF etching technology

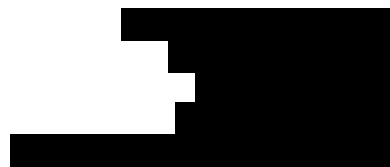
• **Software**

Layout design software: L-Edit, Tanner EDA, Mentor Graphics

Data acquisition software and Data analysis software (Origin, LabView, Igor, excel, aixplorer, Python, etc.)

# Laura Parellada Monreal

## Curriculum Vitae



### Personal information

Birth



Nationality



### Education

- Nov. 2015 - March 2019 **Ph.D. in Applied Engineering**,  
*University of Navarra, San Sebastián - Donostia, Spain*,  
Laser-nanostructured metal oxide semiconductors for conductometric gas sensors.  
Distinction: International Cum Laude  
Under the supervision of Dra. Gemma G<sup>a</sup>. Mandayo and Dra. Irene Castro Hurtado
- Sept. 2014 - July 2015 **International MSc of Nanosciences & Nanotechnologies: MSc 2 Nanophysics and Nanostructures**,  
*Joseph Fourier University, Grenoble, France*.
- Sept. 2008 - June 2013 **BSc in Physics**,  
*University of Barcelona (UB), Barcelona, Spain*.
- Sept. 2006 - June 2009 **Grade in Viola**,  
*Conservatori Municipal de música de Barcelona, Spain*.

### Professional experience

- Sept. 2020 - Present **Researcher**,  
*Fondazione Bruno Kessler, Trento, Italy*.  
Main tasks:
  - Fabrication process and technology development of Silicon Photomultipliers.
  - TCAD process simulation.
- Dec. - June 2020 **Postdoctoral researcher**,  
*Cirimat, Toulouse, France*.  
Main tasks:
  - RF magnetron sputtering of metal oxide thin films.
  - Electrical and microstructural material characterization.
  - Study the performance of silicon microsensors platforms for NO<sub>2</sub> detection.
  - Analysis, interpretation and presentation of results.
  - Ph.D. supervision.
- Nov. 2015 - March 2019 **Predoxal researcher**,  
*Ceit-IK4, San Sebastián - Donostia, Spain*.  
Main tasks:
  - Cleanroom microfabrication of gas sensing devices using photolithography and sputtering of metal oxide thin films (mainly ZnO and WO<sub>3</sub>).



- Nanostructuring of metal oxide thin films by nano- and femtosecond laser systems.
- Nanostructures characterization compared to thin film.
- Gas sensing experiments: acquisition of the sensor conductance as a function of target gas concentration in controlled atmospheres.
- 2D heat transfer equation simulation using Matlab.
- Implementation and validation of the sensor devices into a wireless electronic platform able to operate in a real environment.
- Communication of the results in international conferences and peer-review journals.

March - July 2015

### **MSc Thesis,**

*Alternative Energies and Atomic Energy Commission, Institute for Nanoscience and Cryogenics & European Synchrotron Radiation Facility CGR/IF BM32, Grenoble, France.*

GISAXS analysis of platinum nanoparticles grown on graphene/Ir(111)

Under the supervision of Dr. Gilles Renaud

Main tasks:

- GISAXS data analysis and simulation.
- Interpretation of the results and development of a growth model.

January - June 2014

### **Internship,**

*European Synchrotron Radiation Facility - Surface Science Laboratory, Experiments Division, Scientific Infrastructure, Grenoble, France.*

Main tasks:

- Provide AFM expertise to the European Photon & Neutron Science Campus scientists.
- Development of the Surface Science Laboratory website.

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## Skills

### Microfabrication and nanostructuring techniques

Photolithography, DC and RF sputtering deposition, annealing treatments, RIE, direct laser interference patterning (DLIP), femtosecond laser subwavelength patterning.

### Characterization techniques

AFM, SEM, GIXRD, Mechanical profilometer, Raman spectroscopy, TOF-SIMS, XPS, GDOES, TEM.

### Computer skills

Good command of Origin, MATLAB, Victory Process, LabVIEW, Microsoft Office™ tools, LaTeX, SciDAVis (Scientific Data Analysis Visualization), IsGISAXS, PyRod (GISAXS Data treatment) and Jahia (website editor).

Basic command of Fortran 77, Python and AutoCAD.

### Personal skills

Organized, self-motivated, analytical, proactive, hands-on problem-solving skills, team player

*Ceit-IK4.*

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## Teaching activities

Jan. - May 2017 and

Jan. - May 2016

### **Professor's assistant,**

*Nanotechnology and photonics course, Telecommunications MSc, Tecnun-University of Navarra*

## PERSONAL INFORMATION



## Matteo Valt

 FBK - Sensors and Devices, Micro Nano Facility via Sommarive 18, 38123 Povo, Trento, Italy,

 (+39) 0461 314498

 [mvalt@fbk.eu](mailto:mvalt@fbk.eu)

 **ORCID** 0000-0003-2621-5555

## WORK EXPERIENCE

2021 - Present

### Researcher

MNF - Micro Nano Facility Unit, Sensors and Devices Center, Bruno Kessler Foundation, Trento (Italy)

– Topic: Development of innovative materials and devices fostering environmental sustainability

2019 - 2021

### PostDoc Research Fellow

Department of Physics & Earth Sciences, Sensors and semiconductor laboratory, University of Ferrara (Italy)

– Topic: Calibration of sensors for the inclusive and preventive monitoring of gaseous emissions related to the health status of agrifood crops

## EDUCATION AND TRAINING

2016 - 2019

### PhD in Experimental Physics (FIS/01) (ISCED 4)

Department of Physics & Earth Sciences, Sensors and semiconductor laboratory, University of Ferrara (Italy), co-founded by INFN (National Institute for Nuclear Physics)

– Thesis title: 2D materials for room-temperature chemoresistive gas sensing  
– Supervisors: Prof. Vincenzo Guidi (University of Ferrara), Prof. Fabio Mantovani (INFN)

2013 - 2016

### Master's Degree in Chemical Sciences

Department of Chemical and Pharmaceutical Sciences, University of Ferrara (Italy)

– Thesis title: Functionalization of Graphene Oxide for Gas Sensing and Cation Trapping  
– Supervisors: Prof. Vincenzo Guidi

2008 - 2013

### Bachelor's Degree in Chemistry

Department of Chemical and Pharmaceutical Sciences, University of Ferrara (Italy)

– Thesis title: Copper chelators for therapeutic purposes  
– Supervisor: Prof. Maurizio Remelli

## PERSONAL SKILLS

Mother tongue(s) Italian

Other language(s) English (First Certificate in English (FCE) B2)

- Job Related Skills
- Reviewer for Sensors and Actuators, B: Chemical (Elsevier), Sensors (MDPI), Coatings (MDPI), Chemosensors (MDPI), ACS Applied Materials & Interfaces (American Chemical Society) and RSC Advances (Royal Society of Chemistry), Scientific Reports (Nature).
  - Certified "Outstanding contribution in reviewing for Sensor & Actuators B: Chemical" (2018).
  - Volume Editor for MDPI Proceedings (ISSN 2504-3900), Volume 14, GOSPEL 2019 (<https://www.mdpi.com/2504-3900/14/1>) and Volume 26, DyProSo 2019 - The 37th International Symposium on Dynamical Properties of Solids (<https://www.mdpi.com/2504-3900/26/1>)
  - Organizing committee member for the "8th GOSPEL Workshop. Gas sensors based on semiconducting metal oxides: basic understanding & application fields", 20-21 June 2019, Ferrara, Italy. (<https://agenda.infn.it/event/17310/>)
  - Organizing committee member for the "XXXVII International Symposium on Dynamical Properties of Solids", 8-12 September 2019, Ferrara, Italy. (<https://agenda.infn.it/event/15251/>)
  - Workshop manager for "PhD GOSPEL Workshop. Gas sensors based on semiconducting metal oxides: basic understanding & application fields", From October 2021, online. (<https://agenda.infn.it/e/PHDGOSPEL2021>)
- Digital skills
- Operating systems: Windows, Linux, Mac OS
  - Softwares: Microsoft Office software package, Adobe Creative Suite, Apple Final Cut, Blender
  - Data analysis and simulation: OriginLab Origin, Bruker OPUS, PerkinElmer ChemOffice, MesoBioNano Explorer (MBN Explorer), BIOVIA Materials Studio, Autodesk AutoCAD, Fusion 360 and CFD.
  - Coding: Python, LabView, Arduino IDE, Matlab, LATEX, C/C++, Fortran.
  - Web Dev: HTML, CSS, Wordpress
  - Agenda management system: Indico (Integrated Digital Conference: <http://indico.cern.ch>)

## ADDITIONAL INFORMATION

- Publications
- M. Valt, M. Caporali, B. Fabbri, A. Gaiardo, S. Krik, E. Iacob, L. Vanzetti, C. Malagù, M. Banchelli, C. D'Andrea, M. Serrano-Ruiz, M. Vanni, M. Peruzzini, and V. Guidi, "Air Stable Nickel-Decorated Black Phosphorus and Its Room-Temperature Chemiresistive Gas Sensor Capabilities", ACS Applied Materials Interfaces, Sep. 2021, issn: 1944-8244. (<https://pubs.acs.org/doi/10.1021/acsami.1c10763>)
  - E. Spagnoli, S. Krik, B. Fabbri, M. Valt, M. Ardit, A. Gaiardo, L. Vanzetti, M. Della Ciana, V. Cristino, G. Vola, S. Caramori, C. Malagù, and V. Guidi, "Development and characterization of WO<sub>3</sub> nanoflakes for selective ethanol sensing", Sensors and Actuators B: Chemical, p. 130593, 2021, issn: 0925-4005. (<https://doi.org/10.1016/j.snb.2021.130593>).
  - M. Valt, B. Fabbri, A. Gaiardo, S. Gherardi, D. Casotti, G. Cruciani, G. Pepponi, L. Vanzetti, E. Iacob, C. Malagu, P. Bellutti, and V. Guidi, "Aza-crown-ether functionalized graphene oxide for gas sensing and cation trapping applications", Materials Research Express, vol. 6, no. 7, p. 075603, Apr. 2019, issn: 20531591. (<https://doi.org/10.1088/2053-1591/ab11fb>)
  - B. Fabbri, M. Valt, C. Parretta, S. Gherardi, A. Gaiardo, C. Malagù, F. Mantovani, V. Strati, and V. Guidi, "Correlation of gaseous emissions to water stress in tomato and maize crops: From field to laboratory and back", Sensors and Actuators, B: Chemical, vol. 303, 2020, issn: 09254005(<https://doi.org/10.1016/j.snb.2019.127227>)
  - M. Valt, M. Della Ciana, B. Fabbri, D. Sali, A. Gaiardo, and V. Guidi, "Design and validation of a novel operando spectroscopy reaction chamber for chemoresistive gas sensors", Sensors and Actuators B: Chemical, vol. 341, p. 130012, Apr. 2021, issn: 09254005. (<https://doi.org/10.1016/j.snb.2021.130012>)

Trento, 24.06.2022