

ALLEGATO B

# DICHIARAZIONI SOSTITUTIVE DI CERTIFICAZIONI

(art. 46 D.P.R. n. 445/2000)

## DICHIARAZIONI SOSTITUTIVE DELL'ATTO DI NOTORIETÀ

(art. 47 D.P.R. n. 445/2000)

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Visto il D.P.R. 28 dicembre 2000, n. 445 concernente "T.U. delle disposizioni legislative e regolamentari in materia di documentazione amministrativa" e successive modifiche ed integrazioni;

Vista la Legge 12 novembre 2011, n. 183 ed in particolare l'art. 15 concernente le nuove disposizioni in materia di certificati e dichiarazioni sostitutive (\*);

Consapevole che, ai sensi dell'art.76 del DPR 445/2000, le dichiarazioni mendaci, la falsità negli atti e l'uso di atti falsi sono punite ai sensi del Codice penale e delle leggi speciali vigenti in materia, dichiara sotto la propria responsabilità:

# che quanto dichiarato nel seguente curriculum vitae et studiorum comprensivo delle informazioni sulla produzione scientifica corrisponde a verità

# Curriculum vitae et studiorum

studi compiuti, i titoli conseguiti, le pubblicazioni e/o i rapporti tecnici e/o i brevetti, i servizi prestati, le funzioni svolte, gli incarichi ricoperti ed ogni altra attività scientifica, professionale e didattica eventualmente esercitata (in ordine cronologico iniziando dal titolo più recente)

Es:	descrizione	del	titolo	
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Via Campi Flegrei, 34 – Comprensorio "A. Olivetti", Edificio 70 – 80078 POZZUOLI (Napoli) – Italia Tel.: +39 081 867 5266/5099 – Fax: +39 081 8675326 - E-mail: segreteria@isasi.cnr.it PEC: protocollo.isasi@pec.cnr.it - www.isasi.cnr.it





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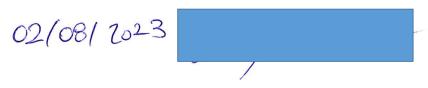
(\*) ai sensi dell'art. 15, comma 1 della Legge 12/11/2011, n. 183 le certificazioni rilasciate dalla P.A. in ordine a stati, qualità personali e fatti sono valide e utilizzabili solo nei rapporti tra privati; nei rapporti con gli Organi della Pubblica Amministrazione e i gestori di pubblici servizi, i certificati sono sempre sostituiti dalle dichiarazioni sostitutive di certificazione o dall'atto di notorietà di cui agli artt. 46 e 47 del DPR 445/2000

#### N.B:

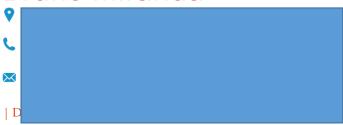
- 1) Datare e sottoscrivere tutte le pagine che compongono la dichiarazione.
- 2) Allegare alla dichiarazione la fotocopia di un documento di identità personale, in corso di validità, sottoscritto con firma leggibile
- 3) Le informazioni fornite con la dichiarazione sostitutiva devono essere identificate correttamente con i singoli elementi di riferimento (esempio: data, protocollo, titolo pubblicazione ecc...).
- 4) Il CNR, ai sensi dell'art. 71 e per gli effetti degli artt. 75 e 76 del D.P.R. 445 del 28/12/2000 e successive modifiche ed integrazioni, effettua il controllo sulla veridicità delle dichiarazioni sostitutive.
- 5) La normativa sulle dichiarazioni sostitutive si applica ai cittadini italiani e dell'Unione Europea.
- 6) I cittadini di Stati non appartenenti all'Unione, regolarmente soggiornanti in Italia, possono utilizzare le dichiarazioni sostitutive di cui agli artt. 46 e 47 del D.P.R. 445 del 28.12.2000 limitatamente agli stati, alla qualità personali e ai fatti certificabili o attestabili da parte di soggetti pubblici italiani, fatte salve le speciali disposizioni contenute nelle leggi e nei regolamenti concernenti la disciplina dell'immigrazione e la condizione dello straniero.

Al di fuori dei casi sopradetti, i cittadini di Stati non appartenenti all'Unione autorizzati a soggiornare nel territorio dello Stato possono utilizzare le dichiarazioni sostitutive nei casi in cui la produzione delle stesse avvenga in applicazione di convenzioni internazionali fra l'Italia e il Paese di provenienza del dichiarante.

Convenzioni internazionali na ritalia e il riaese di provenienza dei dicinaranti



# **Bruno Miranda**





## **Education and Training**

November 2019 - April 2023 | Ph.D. in Information and Communication Technology for Health (ICTH) - XXXV cycle

- Received at the University of Naples "Federico II" on the 19th of April 2023
- Department of Electrical Engineering and Information Technology (DIETI) University of Naples "Federico II"
- Institute of Applied Sciences and Intelligent Systems (ISASI) National Research Council Naples Unit
- Experience in Linux programming, Matlab and Comsol Multiphysics software for the design of periodic and non-periodic arrays of Dielectric and Plasmonic Nanoresonators for Biosensing Applications.
- Nanofabrication, characterization, and functionalization of metal/polymer nanocomposite biosensors for the selective immobilization and detection of biomolecules for diagnostic screening in body fluids. The transducing mechanisms are based on LSPR refractometric and/or swelling dependent detection, surface-enhanced Raman scattering (SERS) and Metal-enhanced Fluorescence (MEF).
- Nanofabrication, characterization, and functionalization of bimetallic (Ag/Au) random arrays of nanoislands for antibodies functionality assessment.
- Design and Characterization of Diatomite/AuNPs hybrid nanocarriers for drug delivery applications.
- Identification of the Optical Properties of Hybrid Nanoparticles by Reverse Engineering approach.
- Fabrication, characterization, and functionalization of Macroporous/Mesoporous/Microporous Silicon substrates for biosensing applications.
- Design, fabrication, and characterization of polymer/TiO<sub>2</sub> nanocomposites for food packaging applications.
- Final Mark: Excellent.

#### September 2016 - March 2019 | Master's Degree in "Industrial Bioengineering"

- Received at the University of Naples "Federico II" on the 26<sup>th</sup> of March 2019
- Main Subjects\*: Fluid Mechanics, Transport Phenomena and Thermodynamics of Living Systems, Biomechanics, Systems and Synthetic Biology, Tissue Growth and Remodelling, Microfluidics for Lab-on-Chip, Fundamentals of Materials, Tissue Engineering and Biomaterials, Diagnostic Devices and Drug Delivery, basis of Biochemistry, basis of Cell and Molecular Biology.
  - (\*) All courses are held in English
- Short Projects:
  - · Study of laminar flows and diffusion in microchannels, project to get hands-on experience on microfluidic devices;
  - Matlab Report on "Synthetic Gene Network for Entraining and Amplifying Cellular Oscillations";
  - Lab Project for the analysis of Droplet Generation (W/O stable emulsion) in microfluidic X-Junction;
  - Design of a Bioreactor for Articular Cartilage to study the effects of a new Growth Factor on the synthesis of Type II Collagen and Glycosaminoglycans.
- <u>Certificate</u> of Participation in "Dolomite Microfluidics" workshop on 11/10/2017
- Master Thesis: "Optimization of a Dual-Mode Optical Biosensor for Biomedical Applications" developed during a
  Research Internship to Okinawa (Japan) Institute of Science and Technology (OIST) from 07/2018 to
  12/2018. Main activities involved nanofabrication of gold nanostructured plasmonic arrays through thermal



dewetting of Au thin layers and reactive ion etching of the obtained NIs. The arrays were morphologically characterized, LSPR and Fluorescence Sensing was performed, and primary antibody immobilization techniques were applied.

• <u>GPA:</u> 4.0/4.0 (29.824/30) <u>Final mark</u>: 110/110 cum Laude with Mention.

#### September 2013 - October 2016 | Bachelor's Degree in "Biomedical Engineering"

- Received at the University of Naples "Federico II" on the 4<sup>th</sup> October 2016
- <u>Main Subjects</u>: Calculus, General Physics, Informatics, Electronics, Electromagnetic Fields, Biomaterials, Biomechanics, Biomedical Signals and Data Elaboration, Biochemical Reactors.
- <u>Thesis</u>: "Identification of Optical Properties of Composite Nanoparticles for Biomedical Applications". The project was developed in collaboration with the Institute of Microelectronics and Microsystems (IMM) of National Research Council (CNR) in Naples. The identification of the optical properties of Gold NPs with PEG and Citrate inclusions was performed through Matlab Optimization Algorithm toolbox. One example is Genetic Algorithm, with the aim of minimizing theoretical models and experimental data.
- *Final mark*: 110/110

## **Work Experience**

#### 2023/04 - To Date | Research consultant for ISASI-NA, CNR

- Institute of Applied Sciences and Intelligent Systems, Naples Unit National Research Council, via P. Castellino, 111,
- Consultant for the design, fabrication, and characterization of polymeric nanocomposites for biosensing applications.

#### 2021/01 | External Consultant for Materias s.r.l.

- Materias s.r.l. Corso N. Protopisani 50, Naples, Italy
- Consultant for the design, fabrication, and characterization of Polymeric Oxygen sensors for food packaging.

#### 2020/09 - 2021/02 | Fellow for tutoring activities

- DIETI Department University of Naples "Federico II".
- Tutor and Activities Coordinator for First Year Engineering Students

#### 2019/05 - 2019/11 | Postgraduate Internship

- Institute of Microelectronics and Microsystems (IMM) of National Research Council (CNR) in Naples
- Nanofabrication and Characterization of Plasmonic Optical Biosensors based on gold nanoparticles embedded into Polymeric Matrices for biomedical applications.

#### 2018/07 - 2018/12| Research Internship

- Okinawa Institute of Science and Technology (OIST), Okinawa, Japan.
- Nanofabrication and Characterization of large-scale gold nanostructures to produce an optical biosensor highly sensitive
  to refractive index variations and coupled to fluorescent dyes to exploit metal-enhanced fluorescence.

#### 2017/09 - 2018/02 and 2018/09 - 2019/02 | Fellow for tutoring activities

- DICMAPI Department University of Naples "Federico II".
- Tutor for First Year Engineering Students

#### 2016/02 - 2016/06 | Part-Time Student Collaboration

• Department DIETI University of Naples "Federico II". Collaborator in the Library

#### Foreign Languages

ENGLISH Advanced (C1) – Cambridge English CEFR\*/ Trinity College London 10th Level



- FRENCH Upper Intermediate (B2) Certification DELF
- SPANISH Intermediate (B1) Certification DELE
- \*Common European Framework of Reference for Languages (CEFR)

## **Computer Skills**

- OFFICE and OPENOFFICE suites excellent proficiency in office suite tools (word processor, spreadsheet, presentation software).
- MATLAB and MATHEMATICA excellent proficiency in the numerical and symbolic calculation tools, acquired during my studies. Matlab Fundamentals, Machine Learning and Deep Learning on-ramp courses were attended and certified.
- Dev C++ good mastery of programming language, acquired during my studies.
- Comsol Multiphysics excellent proficiency in the tool for the numerical simulation in the wave optics, structural mechanics, and fluid mechanics frameworks for the design of optical nanoresonators, microfluidic devices, and microneedles indentation.
- Origin Pro excellent proficiency in the tool for the data analysis and plots.
- Image J and Gwyddion excellent proficiency in the tool for the image analysis.
- Cinema 4D good proficiency in the tool for image design, production, and rendering.

## **Laboratory Equipment and Tools**

- Class 1000 Cleanroom
- RED-00000117 Electron Beam Vapor Deposition Equipment Kawasaki Science KE604TT1-TKF1
- Thermal Evaporator
- Fast-Annealing Furnaces
- Plasma Etching Vapour Deposition ICP CVD Oxford Instruments Plasmalab 100
- RED-00000567 Scanning Electron Microscope FEI QUANTA 250 FEG
- Ion Sputter Coater Hitachi MC1000
- Ocean Optics Transmission Mode setup consisting of a Halogen Light Source with Attenuator and TTL-Shutter, two optical fibres (probes) and a Miniature Spectrometer, connected to a computer via USB.
- Customized Optical Setups for Reflectance, Transmittance, and Scattering evaluation of nanoresonators.
- Nikon Eclipse Ti-U Inverted Bright Field/Dark Field/Fluorescence Microscope
- Leica X, Direct Bright Field/Dark Field/Fluorescence Microscope
- Optical Spectra Analyser (OSA)
- FILMETRICS F20 Thin-Film Analyzer
- Gas Laser (325/450 nm laser lines) for Photoluminescence measurements
- Contact Printer (UV-light) for the curing of photosensitive polymers.
- Dynamic Light Scattering (DLS)
- Freeze Drying
- Fourier Transform InfraRed (FTIR) spectroscopy

## **Editorial Contributions**

- Reviewer for the journal "Plasmonics".
- Reviewer for the journal "Optics Letters".



• Guest Editor of the Special Issue entitled "Nanostructured Devices for Biochemical Sensing" in the section "Analytical Methods, Instrumentation and Miniaturization" for the journal Chemosensors (ISSN 2227-9040) - MDPI (2021-2022).

## **Tutoring Activities**

- Co-Supervisor of two bachelor's degree Students (07/2020-09/2020 and 04/2021-05/2021).
- Fellow for Tutoring Activities at the University of Naples Federico II in the academic Years: 2017/18 (50 hours), 2018/19 (50 hours), and 2020/21 (50 hours).

## Publications, Book Chapters, and Proceedings.

- B. Miranda (First Author), M. Battisti, S. De Martino, V. Nocerino, P. Dardano, L. De Stefano, G. Cangiano,
   Hollow Microneedle-based Plasmonic Sensor for on Patch Detection of Molecules in Dermal Interstitial Fluid,
   Advanced Materials Technologies, 2300037, 2023.
- V. Nocerino, B. Miranda (Co-First Author), C. Tramontano, G. Chianese, P. Dardano, I. Rea, L. De Stefano,
   Plasmonic Nanosensors: Design, Fabrication, and Applications in Biomedicine, Chemosensors, 10 (5), 150, 2022.
- B Miranda (Fist and Corresponding Author), R Moretta, P Dardano, I Rea, C Forestiere, L De Stefano, H<sup>3</sup>
   (Hydrogel-Based, High-Sensitivity, Hybrid) Plasmonic Transducers for Biomolecular Interactions Monitoring, Advanced Materials Technologies, 7(9), 2101425, 2022.
- C. Tramontano, B. Miranda (Co-First Author), G. Chianese, L. De Stefano, C. Forestiere, M. Pirozzi, I. Rea,
   Design of Gelatin-Capped Plasmonic-Diatomite Nanoparticles with Enhanced Galunisertib Loading Capacity
   for Drug Delivery Applications, International Journal of Molecular Sciences, 22 (19), 10755, 2021.
- C. Forestiere, G. Miano, B. Miranda, <u>Electromagnetic Scattering by Networks of High-Permittivity Thin Wires</u>, Phys. Rev. Applied 16, 014015, 2021.
- M. Battisti, S. De Martino, B. Miranda (Corresponding Author), C. Tammaro, P. Dardano, S. Dello Iacono,
   L. De Stefano, Oxygen indicator films of acrylate photopolymers and TiO<sub>2</sub> nanoparticles with tunable response times, Optical Materials Express 11 (7), 2244-2255, 2021.
- B. Miranda (First Author), R. Moretta, S. De Martino, P. Dardano, I. Rea, C. Forestiere, L. De Stefano, <u>Plasmonic hydrogel nanocomposites with combined optical and mechanical properties for biochemical sensing</u>, Chem. Proc., 3, 2021.
- B Miranda (First Author), I Rea, P Dardano, L De Stefano, C Forestiere, <u>Recent Advances in the Fabrication</u> and <u>Functionalization of Flexible Optical Biosensors: Toward Smart Life-Sciences Applications</u>, Biosensors 11 (4), 107, 2021.
- C. Forestiere, G. Miano, B. Miranda, <u>Electromagnetic Scattering by Networks of High-Permittivity Thin Wires</u>, arXiv preprint arXiv:2102.08830, 2021.
- B. Miranda (First Author), R. Moretta, S. De Martino, P. Dardano, I. Rea, C Forestiere, and L. De Stefano,
   A PEGDA hydrogel nanocomposite to improve gold nanoparticles stability for novel plasmonic sensing platforms, Journal of Applied Physics 129 (3), 033101, 2021.
- P. Dardano, S. De Martino, M. Battisti, B. Miranda, I. Rea, L. De Stefano, <u>One-Shot Fabrication of Polymeric Hollow Microneedles by Standard Photolithography</u>, Polymers 13 (4), 520, 2021.
- M. Terracciano, C. Tramontano, R. Moretta, B. Miranda, N. Borbone, L. De Stefano, I. Rea, <u>Protein-Modified Porous Silicon Optical Devices for Biosensing</u>, Porous Silicon for Biomedical Applications, Book Chapter, 2021.



- B. Miranda (First Author), R. Moretta, P. Dardano, I. Rea, C. Forestiere, L. De Stefano, <u>Hydrogel-based Nanocomposite Plasmonic Sensors for Biomedical Applications</u>, 2020 Italian Conference on Optics and Photonics (ICOP), 1-4, 2020.
- P. Dardano, M. Battisti, S. De Martino, I. Rea, B. Miranda, L. Nicolais, L. De Stefano, <u>Theranostic Microneedle Devices: Innovative Biosensing and Transdermal Drugs Administration</u>, Biosensor-Current and Novel Strategies for Biosensing, Book Chapter, 2020.
- B. Miranda (First Author), K.Y. Chu, P.L. Maffettone, A.Q. Shen, R. Funari, <u>Metal-Enhanced Fluorescence Immunosensor Based on Plasmonic Arrays of Gold Nanoislands on an Etched Glass Substrate</u>, ACS Applied Nano Materials, 2020.

## **Patents**

• 2022; Luca De Stefano, Selene De Martino, Mario Battisti, and <u>Bruno Miranda</u>; Colorimetric sensor and its preparation procedure; WO/2022/167914A1 WIPO (PCT).

## **Contributions to Workshops and Conferences**

- Plasmonica 2023 Workshop, Milano, Italy, 5-7<sup>th</sup> July 2023, ORAL PRESENTATION
   B. Miranda, V. Nocerino, I. Rea, P. Dardano, C. Forestiere, L. De Stefano; <u>A Versatile Plasmonic Nanocomposite Device for Biosensing Applications: from wearable sensors to food-quality monitoring</u>, 2023.
- ICETD 2023 International Conference on Emerging Technologies and Drug Delivery, 17-19th April 2023, POSTER PRESENTATION,
  - <u>V. Nocerino</u>, B. Miranda, M. Battisti, S. De Martino, P. Dardano, L. De Stefano; Simulation models: photopolymerization and mechanical indentation of micro-needles (MNs) for transdermal drug delivery, 2023.
- ICETD 2023 International Conference on Emerging Technologies and Drug Delivery, 17-19<sup>th</sup> April 2023, ORAL PRESENTATION,
  - <u>P. Dardano</u>, M. Battisti, S. De Martino, I. Rea, L. Serpico, B. Miranda, V. Nocerino, L. De Stefano; <u>Photolithographic approach for microneedle devices: from design to applications</u>, 2023.
- ISASI Meeting 2022, Institute of Applied Sciences and Intelligent Systems Workshop, 5-7<sup>th</sup> December 2022, ORAL PRESENTATION
  - <u>B. Miranda</u>, V. Nocerino, I. Rea, P. Dardano, S. Dello Iacono, and L. De Stefano; <u>Optimization of Hydrogel Plasmonic Nanocomposites for Wearable Sensors and Food Quality Assessment</u>, 2022.
- Plasmonica 2022 Workshop, Torino, Italy, 7-8<sup>th</sup> July 2022, ORAL PRESENTATION
   B. Miranda, R. Moretta, S. Dello Iacono, P. Dardano, I. Rea, C. Forestiere, L. De Stefano; <u>Hydrogel-based Plasmonic Nanocomposites for label-free and non-label-free Biomolecular Interactions Monitoring.</u>
- CIMTEC 2022 15th International Conference on Modern Materials and Technologies, Perugia, Italy, 24-29<sup>th</sup>
   June 2022, ORAL PRESENTATION
  - <u>B. Miranda</u>, S. De Martino, R. Moretta, P. Dardano, I. Rea, C. Forestiere, L. De Stefano; <u>Novel Nanocomposite Plasmonic Sensors for Biomedical Applications</u>, 2022.
- qBATS 2022 Quantum & Biomedical Applications Technologies and Sensors 2022, Lugano, Switzerland, 20-21st June 2022, ORAL PRESENTATION
  - <u>B. Miranda</u>, R. Moretta, S. Dello Iacono, P. Dardano, I. Rea, C. Forestiere, L. De Stefano; <u>Large-scale</u>, <u>Hydrogel-based</u>, <u>Plasmonic Nanocomposites for Biomolecular Interactions Monitoring</u>, 2022.
- ICOP 2022 Italian Conference of Optics and Photonics, Trento, Italy, 15-17<sup>th</sup> June 2022, ORAL PRESENTATION
  - <u>B. Miranda</u>, R. Moretta, S. Dello Iacono, P. Dardano, I. Rea, C. Forestiere, L. De Stefano; <u>Hydrogel-based Plasmonic Nanocomposite for Biochemical Sensing</u>, 2022.



- ICOP 2022 Italian Conference of Optics and Photonics, Trento, Italy, 15-17<sup>th</sup> June 2022, POSTER PRESENTATION
  - <u>B. Miranda</u>, S. Dello Iacono, P. Dardano, I. Rea, L. De Stefano; <u>Hybrid Strain Sensors based on Hydrogel Plasmonic Nanocomposites</u>, 2022.
- PSST 2022 Porous Semiconductors Science and Technology 2022, 27<sup>th</sup> March 1<sup>st</sup> April 2022, Lido di Camaiore, Tuscany, Italy, ORAL PRESENTATION
  - <u>B. Miranda</u>, C. Tramontano, G. Chianese, C. Forestiere, I. Rea, L. De Stefano, <u>Design of Engineered Porous Biosilica Nanoparticles with Enhanced Galunisertib Loading Capacity for Drug Delivery Applications</u>, 2022
- ECSA 2021 8th International Electronic Conference on Sensors and Application, 1-15<sup>th</sup> November 2021, ACCEPTED ABSTRACT
  - M. Battisti, S. De Martino, <u>B. Miranda</u>, C. Tammaro, P. Dardano, S. Dello Iacono, L. De Stefano; <u>Oxygen indicator films of acrylate photopolymers and titania nanoparticles with tunable response times</u>, 2021.
- ECSA 2021 8th International Electronic Conference on Sensors and Applications, 1-15<sup>th</sup> November 2021, ACCEPTED ABSTRACT
  - <u>B. Miranda</u>, R. Moretta, S. De Martino, P. Dardano, I. Rea, C. Forestiere, L. De Stefano, <u>Optical Design of a Flexible Nanocomposite for Wearable Sensing Applications</u>, 2021.
- ISASI Meeting 2021, Institute of Applied Sciences and Intelligent Systems Workshop, 6-8th October 2021, ORAL PRESENTATION
  - B. Miranda; Flexible Nanophotonic Devices, 2021.
- EOSAM 2021 European Optical Society Annual Meeting, 13-17<sup>th</sup> September 2021, ORAL PRESENTATION
  C. Forestiere, G. Miano, <u>B. Miranda</u>; <u>Electromagnetic scattering by networks of high-permittivity thin wires</u>,
  2021.
- EOSAM 2021 European Optical Society Annual Meeting, 13-17<sup>th</sup> September 2021, ORAL PRESENTATION
   B. Miranda, R. Moretta, S. De Martino, P. Dardano, I. Rea, C. Forestiere, L. De Stefano; <u>Plasmonic hydrogel nanocomposites for biosensing applications</u>, 2021.
- RBID 2021 Research on (Bio)sensors for Infectious Diseases in Italy: State of the Art Virtual Workshop (Società Chimica Italiana, Gruppo Interdivisionale Sensori), 14<sup>th</sup> July 2021, ORAL PRESENTATION
   B. Miranda, R. Moretta, S. De Martino, P. Dardano, I. Rea, C. Forestiere, L. De Stefano, <u>Hydrogel-based plasmonic nanocomposites for biosensing applications</u>, 2021.
- META 2021 11<sup>th</sup> International Conference on Metamaterials, Photonic Crystals and Plasmonics, University of Warsaw, Poland, 21-23<sup>rd</sup> July, 2021, INVITED ORAL PRESENTATION
   B. Miranda, I. Rea, P. Dardano, C. Forestiere, L. De Stefano; <u>Hybrid Plasmonic Nanomaterials: Functional Platforms for Bio and Food</u>, 2021.
- CSAC 2021 1st International Electronic Conference on Chemical Sensors and Analytical Chemistry, 1-15<sup>th</sup> July 2021, ORAL PRESENTATION
   B. Miranda, R. Moretta, S. De Martino, P. Dardano, I. Rea, C. Forestiere, L. De Stefano; <u>Plasmonic hydrogel nanocomposites with combined optical\$1 and mechanical properties for biochemical sensing</u>, 2021.
- ANNIC 2021 Applied Nanotechnology and Nanoscience International Conference, Virtual Conference, 24-26<sup>th</sup> March 2021, ORAL PRESENTATION
   B. Miranda, S. De Martino, R. Moretta, P. Dardano, I. Rea, C. Forestiere, L. De Stefano; <u>Towards Low-Cost Metal-Enhanced Fluorescence Biosensor based on 3D Bio-responsive Hydrogels</u>, 2021.
- Sensors in Medicine 2020, London, UK, 20-23<sup>rd</sup> October 2020, POSTER PRESENTATION
   <u>B. Miranda</u>, S. De Martino, R. Moretta, P. Dardano, I. Rea, C. Forestiere, L. De Stefano; <u>3D Nanocomposite</u>

   <u>Bio-Responsive Hydrogels for Multiplexed Sensing</u>, 2020.
- ICOP2020, Italian Conference of Optics and Photonics, Parma, Italy, 8-11<sup>th</sup> September 2020, ORAL PRESENTATION



- <u>B. Miranda</u>, S. De Martino, R. Moretta, P. Dardano, I. Rea, C. Forestiere, L. De Stefano; <u>Nanocomposite Plasmonic Sensors for Biomedical Applications</u>, 2020.
- Physics Online Meetup (POM 2020), 22<sup>nd</sup> June 2020 POSTER PRESENTATION
   B. Miranda, V. D'Ambrosio, G.Miano, L. De Stefano, and C. Forestiere; Enhancing Electric Field in High-Index Resonators by Flux Conservation of the Displacement Current Density, 2020.
- META 2020 11<sup>th</sup> International Conference on Metamaterials, Photonic Crystals and Plasmonics, University of Warsaw, Poland, ACCEPTED ORAL PRESENTATION
   B. Miranda, I. Rea, P. Dardano, C. Forestiere, L. De Stefano; Hybrid Plasmonic Nanomaterials: Functional
- CIMTEC 2020 15<sup>th</sup> International Conference on Modern Materials and Technologies, Montecatini Terme, Italy, 15-23<sup>rd</sup> June 2020, ACCEPTED ORAL PRESENTATION
   B. Miranda, S. De Martino, R. Moretta, P. Dardano, I. Rea, C. Forestiere, L. De Stefano; Novel Nanocomposite Plasmonic Sensors for Biomedical Applications, 2020.
- Optical Microsystems OµS19, Capri, 9-11<sup>th</sup> September 2019, ORAL PRESENTATION
   B. Miranda, S. De Martino, R. Moretta, P. Dardano, I. Rea, C. Forestiere, L. De Stefano; From Rigid to Flexible Plasmonic Sensors for Biomedical Applications, 2019.
- Plasmonica 2019, Naples, 19-21<sup>th</sup> June 2019, POSTER PRESENTATION
   B. Miranda, N. Bhalla, R. Funari, P. L. Maffettone, A. Q. Shen; Optimization of a Dual-Mode Optical Biosensors for Biomedical Applications, 2019.

### **Prices**

- Winner of "SIOF (Italian Society of Optics and Photonics) and Chemosensors MDPI" award for the "Best Team Project Presentation" at the IV National School in Optical Biosensors and Biophotonics (June 2022).
- Winner of SIOF (Italian Society of Optics and Photonics) "Best Master's Thesis award" in the field of Optical Biosensors (2019).
- Winner of "Premio Rotariano Mario Maria Jacopetti" 2019 (First place) for the best thesis work in industrial engineering and chemical sciences (in the field of chemistry, electrochemistry, and electrical engineering).

## Workshops and Ph.D. Schools Certifications

Platforms for Bio and Food, 2020.

- Plasmonica 2022 International Workshop on Plasmonics (Turin, 7-8<sup>th</sup> July 2022)
- qBATS 2022 Quantum & Biomedical Applications Technologies and Sensors International Workshop (Lugano, 20-21st June 2022)
- "IV National School in Optical Biosensors and Biophotonics" (Ischia, 6<sup>th</sup> 10<sup>th</sup> June 2022)
- "The Chemists for the Biotechnologies" (Naples, 13th-14th February 2020)
- "Towards Novel Anticancer Strategies: It's Time to Build a New Research Community" (Naples, 18<sup>th</sup> November 2019)
- "Plasmonica 2019" (Naples, 19-21st June 2019)
- XXXIII "Scuola Nazionale Dottorandi di Elettrotecnica Ferdinando Gasparini" (Naples, 14-18th October 2019).
- "IEEE Xplore® Digital Library" (Naples, 4<sup>th</sup> April 2019)
- "Dolomite Microfluidics" (Naples, 11th October 2017)

# **Conferences Organization**

In the Organizing Committee of:

• ICETD 2023 – International Conference on Emerging Technologies and Drug Delivery, 17-19th April 2023

## **Communication and Dissemination Activities**

- Futuro Remoto (23<sup>th</sup> November 2022) Dissemination Title: "riCREO equilibri: Tra luce, intelligenza artificiale e nanotecnologie\_dalla scienza alla quotidianità".
- Notte dei Ricercatori (30<sup>th</sup> September 2022) Dissemination on Optical Nanomaterials.
- PCTO "A scuola di Astroparticelle" (7<sup>th</sup>-12<sup>th</sup> May 2022)
- Futuro Remoto (29<sup>th</sup> November 2021) Dissemination Title: "La luce oltre I sensi: percorsi ottici alla scoperta di Nuove Tecnologie" on Optical Nanomaterials
- MeetMeTonight (24<sup>th</sup> September 2021) Dissemanation Title: "La luce e le sue possibili applicazioni" on Technology for the Future.

## **Other Certifications**

- Matlab Fundamentals
- MathWorks Certified MATLAB Associate (4<sup>th</sup> June 2021)
- MATLAB Machine Learning Onramp / MATLAB Deep Learning Onramp

#### **Interests**

I love travelling, visiting novel places, and contacting diverse cultures. I have never limited my interests to only one specific field. Therefore, I can easily adapt at new contexts and learn from people having diverse backgrounds. I also love music and singing.

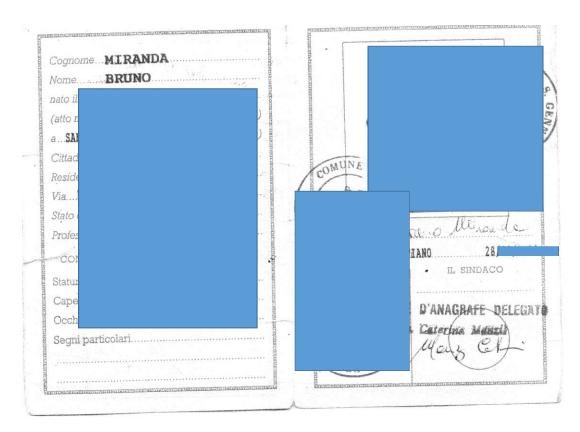
Ai sensi dell'art. 46 e 47 del DPR 445/2000, dichiaro che le informazioni inserite nel mio CV corrispondono a verità, essendo consapevole dell'eventuale applicazione dell'art.76 dello stesso articolo in caso di dichiarazione mendace;

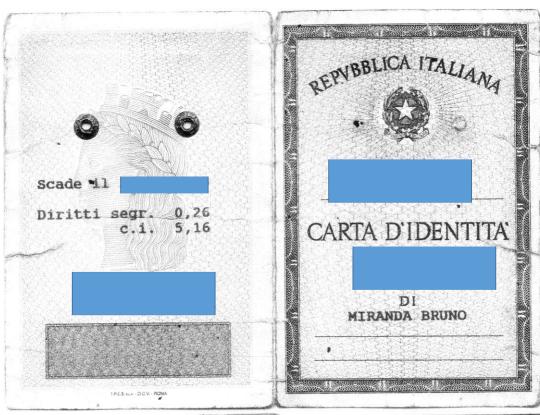
Date

August 02, 2023

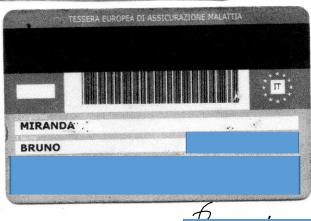
Napoli, lì 02/08/2023











Napoli, lì 02/08/2023