

Laura Mecozzi, PhD

Via Claudio 21, 80125, Napoli, Italy

Edificio 3/A, Stanza 2.11

Email: laura.mecozzi2@unina.it

WORK EXPERIENCE

2023- ongoing: Assistant professor (RTD-A) – Department of Electrical Engineering and Information Technology (DIETI), University of Naples Federico II

Project: “BioRobotics Research and Innovation Engineering Facilities - BRIEF”, Academic-recruitment sector: 09/IBIO-01 – BIOINGEGNERIA – Scientific-disciplinary sector: IBIO-01/A – BIOINGEGNERIA

2020-2022: Consultant (Medical Image processing) - Chiesi Farmaceutici SpA, Parma

Research activities: optimization of image acquisition and post-processing protocols; implementation of automated functional analysis procedures

2018-2020: Senior Research Fellow - Department of Medicine and surgery, University of Parma

Research activities: *in vivo* microtomography in preclinical research: biomedical image acquisition and post-processing for drug efficacy evaluation

2016-2017: Research Fellow - Institute of Applied Sciences and Intelligent Systems - Consiglio Nazionale delle Ricerche (ISASI-CNR), Napoli

2013-2016: PhD grant - Institute of Applied Sciences and Intelligent Systems -Consiglio Nazionale delle Ricerche (ISASI-CNR), Napoli

Research activities: development and fabrication of biocompatible micro- and nanostructures with biomedical applications, including tissue engineering, drug delivery and biosensing

2010-2012: Research Fellow - Medical Technology Lab -Rizzoli Orthopedic Institute, Bologna

Research activities: research aimed at advancing prevention, diagnosis and rehabilitation for musculoskeletal diseases: technical supervision of radiological devices' densitometric calibration and responsibility for neuromotor data collection and cross-correlation in several European and national multicentric studies.

EDUCATION

2013-2016: PhD in Structures and Materials Engineering - Department of Chemical, Materials and Production Engineering (DICMAPI) - University of Naples Federico II

2006-2010: Master's degree - Applied Physics - University of Bologna

BIBLIOMETRIC INDICATORS

ORCID ID: 0000-0001-7246-8313

SCOPUS Author ID: 56278118400

H-index: **16** (*Fonte: Scopus*)

Main Publications

1. E. Vincenzi, A. Fantazzini, C. Basso, A. Barla, F. Odone, L. Leo, **L. Mecozzi**, M. Mambrini, E. Ferrini, N. Sverzellati, F. F. Stellari, A FULLY AUTOMATED DEEP LEARNING APPROACH FOR LUNG DENSITOMETRY OF FIBROTIC MURINE MODELS IN MICRO-CT IMAGING, *Respiratory Research* 23(1), 2022; DOI: 10.1186/s12931-022-02236-x
2. **L. Mecozzi**, M. Mambrini, E. Ferrini, L. Leo, D. Bernardi, A. Grandi, N. Sverzellati, L. Ruffini, M. Silva, F. F. Stellari, THE IMPORTANCE OF ROUTINE QUALITY CONTROL FOR REPRODUCIBLE PULMONARY MEASUREMENTS BY IN VIVO MICRO-CT, *Scientific Reports*, (2022)12:9695; DOI: 10.1038/s41598-022-13477-7
3. **L. Mecozzi**, M. Mambrini, F. Ruscitti, E. Ferrini, R. Ciccimarra, F. Ravanetti, N. Sverzellati, M. Silva, L. Ruffini, S. Belenkov, M. Civelli, G. Villetti, FF. Stellari, IN-VIVO LUNG FIBROSIS STAGING IN A BLEOMYCIN-MOUSE MODEL: A NEW MICRO-CT GUIDED DENSITOMETRIC APPROACH, *Sci Rep.* 2020 Oct 30;10(1):18735. doi: 10.1038/s41598-020-71293-3
4. F. Ruscitti, F. Ravanetti, V. Bertani, L. Ragionieri, **L. Mecozzi**, N. Sverzellati, M. Silva, L. Ruffini, V. Menozzi, M. Civelli, G. Villetti, FF. Stellari, QUANTIFICATION OF LUNG FIBROSIS IN IPF-LIKE MOUSE MODEL AND PHARMACOLOGICAL RESPONSE TO TREATMENT BY MICRO-COMPUTED TOMOGRAPHY, *Front. Pharmacol.* 11:1117 (2020). doi: 10.3389/fphar.2020.01117
5. S. Coppola, G. Nasti, V. Vespini, **L. Mecozzi**, R. Castaldo, G. Gentile, M. Ventre, P. A. Netti, P. Ferraro, QUICK LIQUID PACKAGING: ENCASING WATER SILHOUETTES BY THREE-DIMENSIONAL POLYMER MEMBRANES, *Sci. Adv.* 5, eaat5189 (2019)
6. O. Gennari, R. Rega, M. Mugnano, E. Oleandro, **L. Mecozzi**, V. Pagliarulo, E. Mazzon, A. Bramanti, A. Vettoliere, C. Granata, P. Ferraro, S. Grilli, A SKIN-OVER-LIQUID PLATFORM WITH COMPLIANT MICRO-BUMPS ACTUATED BY PYRO-EHD PRESSURE, *NPG Asia Materials* (2019) 11:1<https://doi.org/10.1038/s41427-018-0100-z>
7. **L. Mecozzi**, O. Gennari, S. Coppola, F. Olivieri, R. Rega, B. Mandracchia, V. Vespini, A. Bramanti, P. Ferraro, S. Grilli, EASY PRINTING OF HIGH VISCOUS MICRODOTS BY SPONTANEOUS BREAKUP OF THIN FIBRES, *ACS Appl. Mater. Interfaces* 2018, 10, 2, 2122–2129 DOI: 10.1021/acsami.7b17358
8. **L. Mecozzi**, O. Gennari, R. Rega, L. Battista, S. Grilli, P. Ferraro, SIMPLE AND RAPID BIOINK JET PRINTING FOR MULTISCALE CELL ADHESION ISLANDS, *Macromol Biosci* 2017 Mar;17(3). doi: 10.1002/mabi.201600307
9. S. Bhowmick, M. Iodice, M. Gioffrè, G. Breglio, A. Irace, M. Riccio, G. Romano, S. Grilli, P. Ferraro, **L. Mecozzi**, S. Coppola, O. Gennari, R. Rega, G. Coppola, INVESTIGATION OF PYROELECTRIC FIELDS GENERATED BY LITHIUM NIOBATE CRYSTALS THROUGH INTEGRATED MICROHEATERS, *Sensors and Actuators A* 261 (2017) 140–150 DOI: 10.1016/j.sna.2017.05.010
10. **L. Mecozzi**, O. Gennari, R. Rega, S. Grilli, S. Bhowmick, M. A. Gioffrè, G. Coppola, P. Ferraro, SPIRAL FORMATION AT THE MICROSCALE BY Micro-PYRO-ELECTROSPINNING, *Soft Matter*, 2016, 12, 55422016, DOI: 10.1039/C6SM00156D
11. R. Rega, O. Gennari, **L. Mecozzi**, S. Grilli, V. Pagliarulo, P. Ferraro, BIPOlar PATTERNING OF POLYMER MEMBRANES BY PYROELECTRIFICATION, *Adv.Mater.* 2016, 28, 454-459, DOI: 10.1002/adma.201503711
12. O. Gennari, V. Marchesano, **L. Mecozzi**, S. Grilli, P. Ferraro, EFFECTS OF LITHIUM NIOBATE POLARIZATION ON CELL ADHESION AND MORPHOLOGY, *ACS Appl. Mater. Interfaces* 2015, 7, 32, 18113–18119 DOI: 10.1021/acsami.5b05340
13. S. Coppola, **L. Mecozzi***, V. Vespini, L. Battista, S. Grilli, G. Nenna, F. Loffredo, F. Villani, C. Minarini, P. Ferraro, NANOCOMPOSITE POLYMER CARBON-BLACK COATING FOR TRIGGERING PYRO-ELECTROHYDRODYNAMIC INKJET PRINTING, *Appl. Phys. Lett.* 106, 261603 (2015); <https://doi.org/10.1063/1.4923469>
14. V. Vespini, O. Gennari, S. Coppola, G. Nasti, **L. Mecozzi**, V. Pagliarulo, S. Grilli, C. Carfagna, P. Ferraro, ELECTROHYDRODYNAMIC ASSEMBLY OF MULTISCALE PDMS MICROLENS ARRAYS, *Journal of Selected Topics in Quantum Electronics*, 2015, DOI: 10.1109/JSTQE.2014.2367656
15. F. Particelli, **L. Mecozzi**, A. Beraudi, M. Montesi, F. Baruffaldi, M. Viceconti, A COMPARISON BETWEEN MICRO-CT AND HISTOLOGY FOR THE EVALUATION OF CORTICAL BONE: EFFECT OF POLYMETHYLMETHACRYLATE EMBEDDING ON STRUCTURAL PARAMETERS, *J Microsc.* 2012 Mar;245(3):302-10. doi: 10.1111/j.1365-2818.2011.03573.x