

# Curriculum Vitae - Matteo Verotti

Università degli Studi di Genova

Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti

## Istruzione e Formazione

Dottorato di ricerca in Ingegneria della produzione industriale

Laurea in Ingegneria Aerospaziale, Sapienza Università of Roma

## Titoli

Conseguimento dell'abilitazione scientifica 09/A2 ING-IND/13 (II Fascia)  
Meccanica Applicata alle Macchine (6/4/2017 - 6/4/2023)

Abilitazione all'esercizio della professione di ingegnere, Sapienza Università of Roma

## Esperienze lavorative

Professore Associato (09/A2 ING/IND-13)

Università degli Studi di Genova

Dipartimento di Ingegneria meccanica, energetica, gestionale e dei trasporti

## Premi e riconoscimenti

Best Poster Award

Di Giamberardino, P., Aceto, M. L., Giannini, O., Verotti, M. Dynamic Estimation of Visco-Elastic Mechanical Characteristics of Biological Samples under Micro Manipulation  
*15<sup>th</sup> International Conference on Informatics in Control, Automation and Robotics (ICINCO)*, July 29-31, 2018, Porto, Portugal

Best Research Paper Award

N. P. Belfiore, M. Verotti, L. Consorti. Comparative Analysis of Isotropy Indices in RR and RRP Arms.  
*18<sup>th</sup> International Workshop on Robotics in Alpe-Adria Danube Region*, May 25-27, 2009, Brasov, Romania

## Pubblicazioni su rivista

1. Veroli, M., Di Giamberardino, P., Belfiore, N. P., Giannini, O.  
A genetic algorithm-based method for the mechanical characterization of biosamples using a MEMS microgripper: numerical simulations.  
*Journal of the Mechanical Behavior of Biomedical Materials* (2019) Vol. 96, pp. 88-95.
2. Veroli, A., Buzzin, A., Frezza, F., de Cesare, G., Hamidullah, M., Giovine, E., Verotti, M., Belfiore, N.  
An Approach to the Extreme Miniaturization of Rotary Comb Drives.  
*Actuators* (2018) Vol. 7, No. 4, p. 70. Multidisciplinary Digital Publishing Institute.
3. Botta, F., Verotti, M., Bagolini, A., Bellutti, P., & Belfiore, N.  
Mechanical Response of Four-Bar Linkage Microgrippers with Bidirectional Electrostatic Actuation.  
*Actuators* (2018) Vol. 7, No. 4, p. 78. Multidisciplinary Digital Publishing Institute.

4. Di Giamberardino, P., Aceto, M., Giannini, O., Verotti, M.  
Recursive Least Squares Filtering Algorithms for On-Line Viscoelastic Characterization of Biosamples. Actuators (2018) Vol. 7, No. 4, p. 74. Multidisciplinary Digital Publishing Institute.
5. Luisetto, I., Tuti, S., Marconi, E., Veroli, A., Buzzin, A., de Cesare, G., Verotti, M., Belfiore, N..  
An Interdisciplinary Approach to the Nanomanipulation of SiO<sub>2</sub> Nanoparticles: Design, Fabrication and Feasibility. Applied Sciences,(2018) 8(12), 2645.
6. Servadio, P., Verotti, M.  
Fuzzy clustering algorithm to identify the effects of some soil parameters on mechanical aspects of soil and wheat yield.  
Spanish Journal of Agricultural Research (2018) v. 16, n. 4, p. e0206, ISSN 2171-9292.
7. Silvia Bertini S., Verotti M., Bagolini A., Bellutti P., Ruta G., Belfiore N. P.  
Scalloping and Stress Concentration in DRIE-Manufactured Comb-Drives Actuators (2018), 7(3)  
DOI: 10.3390/act7030057
8. Potrich C., Lunelli L., Bagolini A., Bellutti P., Pederzoli C., Verotti M., Belfiore, N.P.  
Innovative Silicon Microgrippers for Biomedical Applications: Design, Mechanical Simulation and Evaluation of Protein Fouling  
(2018) Actuators 7(12)  
DOI:10.3390/act7020012
9. Sanò, P., Verotti, M., Bosetti, P., Belfiore, N.P.  
Kinematic Synthesis of a D-Drive MEMS Device with Rigid-Body Replacement Method  
(2018) ASME Journal of Mechanical Design 140(7): 075001.  
DOI: 10.1115/1.4039853
10. Verotti, M.  
Effect of initial curvature in uniform flexures on position accuracy  
(2018) Mechanism and Machine Theory, 119:106-118.  
DOI: 10.1016/j.mechmachtheory.2017.08.021
11. Di Giamberardino, P., Bagolini, A., Bellutti, P., Rudas, I., Verotti, M., Botta, F., Belfiore, N.  
New MEMS Tweezers for the Viscoelastic Characterization of Soft Materials at the Microscale  
(2018) Micromachines, 9(1), 15.  
doi:10.3390/mi9010015
12. Bagolini, A., Ronchin, S., Bellutti, P., Chistè, M., Verotti, M., Belfiore, N.P.  
Fabrication of Novel MEMS Microgrippers by Deep Reactive Ion Etching with Metal Hard Mask  
(2017) IEEE Journal of MicroElectroMechanical Systems 26(4):926-934.  
DOI : 10.1109/JMEMS.2017.2696033
13. Verotti, M., Dochshanov, A., Belfiore, N. P.  
A Comprehensive Survey on Microgrippers Design: Mechanical Structure  
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DOI : 10.1115/1.4036351
14. Dochshanov, A., Verotti, M., Belfiore, N. P.  
A Comprehensive Survey on Microgrippers Design: Operational Strategy  
(2017) ASME Journal of Mechanical Design 139(7): 070801.  
DOI: 10.1115/1.4036352
15. Verotti, M., Dochshanov, A., Belfiore, N. P.  
Compliance Synthesis of CSFH MEMS-based Microgrippers

- (2017) ASME Journal of Mechanical Design 139(2):022301.  
DOI: 10.1115/1.4035053
16. Servadio, P., Bergonzoli, S., Verotti, M.  
Delineation of management zones based on soil mechanical-chemical properties to apply variable rates of inputs throughout a field (VRA)  
(2017) Engineering in Agriculture, Environment and Food 10(1):20-30  
DOI: 10.1016/j.eaef.2016.07.001
17. Verotti, M.  
Analysis of the center of rotation in primitive flexures: Uniform cantilever beams with constant curvature  
(2016) Mechanism and Machine Theory, 97: 29-50.  
DOI: 10.1016/j.mechmachtheory.2015.10.007
18. Verotti, M., Masarati, P., Morandini, M., Belfiore, N.P.  
Isotropic compliance in the Special Euclidean Group SE(3)  
(2016) Mechanism and Machine Theory, 98, pp. 263-281.  
DOI: 10.1016/j.mechmachtheory.2015.12.002
19. Verotti, M., and Belfiore, N., 2015.  
Isotropic Compliance in E(3): Feasibility and Workspace Mapping.  
*ASME Journal of Mechanisms and Robotics*, 8(6), 061005.  
DOI:10.1115/1.4032408
20. Verotti, M., Servadio, P., Bergonzoli, S.  
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(2016) International Journal of Green Energy, 13 (7): 655-664.  
DOI: 10.1080/15435075.2015.1018992
21. Verotti, M., Crescenzi, R., Balucani, M., Belfiore, N.P.  
MEMS-based conjugate surfaces flexure hinge  
(2015) ASME Journal of Mechanical Design 137(1):012301.  
DOI: 10.1115/1.4028791
22. Cecchi, R., Verotti, M., Capata, R., Dochshanov, A., Broggiato, G.B., Crescenzi, R., Balucani, M., Natali, S., Razzano, G., Lucchese, F., Bagolini, A., Bellutti, P., Sciubba, E., Belfiore, N.P.  
Development of micro-grippers for tissue and cell manipulation with direct morphological comparison  
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DOI: 10.3390/mi6111451
23. Belfiore, N.P., Broggiato, G.B., Verotti, M., Balucani, M., Crescenzi, R., Bagolini, A., Bellutti, P., Boscardin, M.  
Simulation and construction of a mems CSFH based microgripper  
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24. Y. Cha, M. Verotti, H. Walcott, S. D. Peterson, M. Porfiri.  
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25. Belfiore, N.P., Verotti, M., Di Giamberardino, P., Rudas, I.J.  
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26. Belfiore, N.P., Di Giamberardino, P., Rudas, I.J., Verotti, M.  
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Comparative analysis of isotropy indices in RR and RRP arms

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