

Curriculum Vitae

Name **Giovanni Berselli**

Summary Giovanni Berselli is **Full Professor and Chair of Design Methods for Industrial Engineering** at the University of Genova, Italy, where he coordinates the PhD Degree in Mechanical, Energy and Management Engineering. He is also *Affiliated Researcher with the Advanced Robotics Department at the Italian Institute of Technology (IIT)*. Prof. Berselli is currently the **Chair of the American Society of Mechanical Engineers (ASME) – Italy Section** and the **past Chair of the ASME Technical Committee on Modeling, Dynamics, and Control of Adaptive Systems**. He has been Visiting & Affiliated Scientist at *Massachusetts General Hospital & Harvard Medical School*, at the *German Aerospace Agency (DLR)*, at the *University of Twente*, at *Monash University*, Australia, and with the School of Advanced Studies of the *University of Navarra*, Spain.

Within his Department, Prof. Berselli coordinates the Erasmus Program and he is Delegate for International Relations. He has authored more than 200 publications in peer-reviewed international journals or conference proceedings, and edited two international books. Recipient of several IFToMM, ASME and IEEE Best Paper Awards and finalist for an ERC starting grant. He is currently Associate Editor for IEEE/ASME Transactions on Mechatronics, International Journal of Interactive Design & Manufacturing, and Mechanical Science. At present, he is also the Coordinator of the Industry 4.0 Curriculum in the National Doctorate in Robotics and Intelligent Machines.

Research Statement G. Berselli's scientific activity is focused on the development of engineering methods and tools for the conceptual and functional design, the modelling and optimization, and the experimental evaluation of integrated mechatronic systems. Specific examples are:

1. *Virtual & Physical Prototyping of **Compliant Mechanisms** and **Compliant Actuators**;*
2. ***Smart-Material-based Transducers** for Soft Robotics;*
3. ***Bond-Graph Modelling** of Mechatronic Systems & **CAE-based multi-disciplinary optimization methods**.*
4. *Digital Manufacturing with explicit expertise in **Eco-Design Methods for Robotic Cells**.*

In particular, during his career, Prof. Berselli has proposed:

1. *New methods to enhance/tailor force-displacement curve of compliant actuators to the application requirements;*
2. *A methodology for the shape optimization of selectively compliant structures in the large-displacement domain;*
3. *New routines/models to describe time-dependent phenomena in compliant joints affected by viscoelasticity;*

Specific applications have been developed in the fields of **robotic hands/grippers**, **soft covers mimicking human fingertips**, **variable stiffness** and **series/parallel elastic actuators**.

Concerning **research in collaboration with industries** (especially with **Daimler-Mercedes**), Prof. Berselli has proposed:

1. *New models and software tools for single/multi-robot energy-flow prediction and optimization;*
2. *Practical methods (plug-ins for Digital Manufacturing tools) for energy optimal path planning and cell layout design*

- Current Positions**
1. **Full Professor in Design Methods for Industrial Engineering (ING-IND/15)**
Department of Mechanical, Energy, Management and Transportation Engineering (DIME) Polytechnic School - University of Genoa (UNIGE)
 2. **Head** of the Ph.D. School in Mechanical, Energy and Management Engineering @ UNIGE.
 3. **Head** of the Mechanical Computer Aided Engineering - M-CAE Lab.
 4. **Affiliated Researcher**, Advanced Robotics - Italian Institute of Technology (IIT).
 5. **Technical advisor** for PHM Technology Pty Ltd, Melbourne (Australia).
 6. **ERASMUS+ Coordinator & Department Delegate for International Relations**.



- Visiting Academic Positions** 2022 Visiting Professor @ German Aerospace Agency (DLR), Munich.
2019/20 Visiting Professor & Affiliate Member, Medical Devices and Simulation Lab - Harvard Medical School (HMS) & Massachusetts General Hospital (MGH), US.
2017 Visiting Professor @ Robotics Lab, University of Twente.
2005 Research Associate, Escuela Superior de Ingenieros de la Universidad de Navarra, Spain.
2004 Research Associate, Monash University, Australia.
- Past Positions** 2018/20 Associate Prof. @ UNIGE.
2015/17 Assistant Prof. (RTDB) @ UNIGE
2011/13 Junior Researcher (RTDA), Uni of Modena and Reggio Emilia.
2009/10 Contract Prof. for Automation Engineering, Uni of Bologna & Tongji Uni.
- Education & Training** 2009 Post-Doc Researcher, University of Bologna.
2009 PhD in Mechanics of Machines, University of Bologna.
2004 Laurea in Mech. Eng. (cum laude), University of Modena and Reggio Emilia.
2001/02 Erasmus student at University of Limerick. Perfect QCA of 4.0/4.0.
- PhD Supervision** 2016/22 Supervisor of 14 PhD + 1 PostDoc @ UniGe.
2011/16 Co-Supervisor of 3 PhD + 2 PostDocs @ Uni of Modena/Bologna
2016/22 Member of the Doctoral Evaluation Panel for 55 PhD candidates @ Anna-Chennai Uni, India, UniS of Modena, Bologna, Brescia, Genova, Scuola Superiore Sant'Anna, Uni. of Trento, Italy.
Supervisor of 90 MS Thesis, 25 in collaboration with i) EPFL; ii) Harvard Medical School; iii) Uni. of Twente; iv) NASA JPL.
- Bibliometric Data** More than 200 scientific communications in WOS/Scopus int. journals/books.
Scopus: Documents=136 - h-index=26 – Citations=1822.
Scholar: h-index=30 - Citations: 2478.
Ratio between Berselli indexes (GBi) & threshold required for ASN referee:
ASN1/GB1=2,1; ASN2/GB2=7,9; ASN3/GB3=2,7.
- Teaching Activity** -2011/22 Lecturer for 1st/2nd degree courses in Mechanical, Automation, Robotics, Marine/Nautical Engineering, Uni of Genova, Modena, Bologna: *i) Design of Automatic Machines and Robots; ii) CAD/CAE Mechanical Design; iii) Advanced Applications for Additive Manufacturing; iv) Computer-Aided Design; v) Technical Drawings; vi) Mechanics of Machines.*
[27CFU/year, ~ 1498 hours, above 98% full student satisfaction].
- 2018: Lecturer for PhD Schools in Mech. Eng. + Bioeng. and Robotics + 2nd level Master Degrees @ UniGe.
- Main Completed /Ongoing Grants** 2022-: Local coordinator – Horizon Europe Project INTELLIMAN – AI-Powered Manipulation System for Advanced Robotic Service, Manufacturing and Prosthetics, **5.98M€**.
2022-: Task Leader -Fit4MedRob, Fit for Medical Robotics, Total **120M€, Local 1.8M€**.
2018/21: Principal Investigator (PI): COSMET–Compliant Mechanisms for Medical Technologies”, **120k€**.
2020: PI - Setting-up an Additive Manufacturing Lab. @ UNIGE. **40.0k€**.
2019: Researcher - Light House Plant (LHP) with Ansaldo Energia (AEN). **100k€**.
2018/20: Task Leader -Interreg AMICE-Advanced Manufacturing in Central Europe, **200k€**.
2013/16: Co-PI & local coordinator - FP7/EU Project AREUS – Automation and Robotics for European Sustainable Manufacturing, **5.9M€**, selected as **Success Story**.
2015/18: PI - Integrated design of a low-cost Wave Energy Converter for On-Shore Applications, **11.5k€**.
2011/14: PI - Setting-up Virtual Reality Lab. @Uni. Modena, **300.0k€**.
2011/12: PI - Eye-Mech: Integrated Design of a Robotic Eye for Application in Surgical Simulators" with HMS/MGH, Regional Grant Spinner, **16k€**.
2012/14: Task Leader - National Tech Cluster Intelligent Factory – ADAPTIVE, **46k€**.
2012-: PI - Tech. activities in collaboration with industries. **~350k€**.
2011/19: Researcher for EU projects i) SoftPRO, ii) Murab, iii) Dexmart, iv) Humodan
2008/11: Researcher for National projects: i) PRIN-Sicura-Safe Physical Interaction between Robots and Humans; ii) PRIN-New actuators for advanced systems of manipulation & haptics.

Awards 2022 ASME Best Symposium Paper Award in Adaptive Systems, Dynamics & Control (ASDC)
2022 ASME Hardware Paper finalist in ASDC, US.
2022 Best Paper Award (BPA) @ FAIM Int. Conf. on Flexible Automation.
2022 Best Presentation Award @ FAIM Int. Conf. on Flexible Automation.
2022 I-RIM BPA, Conf. on Robotics & Intelligent Machines.
2022 BPA @ JCM Int. Conf. on Design Engineering and Advanced Manufact.
2022 MDPI Best Journal Paper Award, Actuators, 2022.
2021 I-RIM BPA, Conf. on Robotics & Intelligent Machines.
2020: ASME Best Journal Paper Award in Adaptive Systems, Dynamics & Control, US.
2020: ASME Best Hardware Paper Award in ASDC, US.
2018: ASME Best Paper Award in ASDC, US.
2018: Finalist Best Hardware & Best Paper Competitions, ASME SMASIS Int. Conf. US.
2016 Finalist for an ERC Starting Grant.
2016: Best Paper Award, IFTT, Int. Conference of IFTomm
2016: Selected for national funding in engineering (FFABR).
2013: Official mention for high distinction in international research at Uni Modena, Italy.
2012: IEEE I-RAS Young Author Best Paper Award, IEEE Trans. on Robotics, 27(3).
2015: Leonardo da Vinci Fellowship.
2002: Official mention for exceptional QCA at University of Limerick.
2015/20: Awards to Advisee, for best MS/PHD. Thesis supervised by G. Berselli: i) ADM award to P. Bilancia; ii) ADM award to G. Vazzoler; iii) Mussini Award to V. Fontana; iv) Lions Club Award to R. Pitzalis, iv) Rotary Club Award to D. Principato.

Keynote/Plenary Lectures (Partial List) Beijing University, China, 2022
Beijing University, China, 2020
ICESTI Int. Conf., Bali, Indonesia, 2019 & 2015.
Politechnika Wroclawska, Wroclaw, 2018.
ASME SMASIS 2018, Int. Conf., San Antonio, Texas.
Columbia University in the City of New York, USA, 2020.
The University of Melbourne, Australia, 2018.
Michigan State University, U.S., 2017.
Harvard Medical School, Boston, US, 2016.
IIT Italian Institute of Technology, Genova, 2016.
Yale University, US, 2013.
Massachusetts General Hospital, US, 2013.
RMIT University, Australia, 2013.
University of Western Australia, 2013.
ASME SMASIS 2018, Int. Conf., Phoenix, Arizona.

Reviewing Activities **Evaluator for several programs** such as:
Projects of relevant national interest - Polish Minister for Education, National Science Centre JSC "National Centre of Science and Technology Evaluation", Kazakhstan.
High-tech program for STW Technology Foundation, (<http://www.stw.nl/>), Nederland.
"ECHORD" European Clearing House for Open Robotics Development, an EU-funded project within the Seventh Framework Program.
Future in Research programs (FIRB).
Projects of relevant national interest - Greek Minister for Education, Life Long Learning and Religious Affairs.
Reviewer for more than 40 high-impact journals, such as:
ASME Journal of Mechanical Design
ASME Journal of Mechanisms and Robotics.
IEEE Robotics and Automation Magazine
IEEE Transaction on Robotics
Reviewer for more than 20 Int. Conf. (IC), such as
ASME SMASIS IC on Smart Materials, Adaptive Structures, and Intelligent Systems
ASME IDECT-CIE, International Design Engineering Technical Conferences & Computers and Information in Engineering Conference
IEEE AIM IC on Advanced Intelligent Mechatronics;
IEEE ICRA IC on Robotics and Automation
IEEE/RSJ IROS IC on Intelligent Robots and System

- Editorial Activities** **Associate Editor** for ISI+SCOPUS-indexed journals:
IEEE/ASME Transactions on Mechatronics, IF=4.93, Q1.
MDPI Machines, CSI=2.04, Q2.
Int. J. of Interactive Design and Manufacturing, CSI=2.04, Q2.
Mechanical Science, IF=1.05, Q2.
Advances in Materials Science and Engineering, IF=1.39, Q2.
Mathematical Problems in Engineering, IF=1.17, Q2.
Thematic Editor for Int. Journal of Adv. Robotic Systems (ISI+SCOPUS) IF=1.22, Q2.
Associate Editor for IEEE/ASME AIM IC on Advanced Intelligent Mechatronics, US, 2020;
Associate Editor for IEEE RAS/EMBS IC on Biomedical Robotics & Biomechanics, US, 2020
Thematic Editor for Int. Journal of Advanced Robotic Systems (ISI+SCOPUS) IF = 1.223, Q2.
- Lead Editor** for the BOOKS:
Smart Actuation and Sensing Systems - Recent Advances and Future Challenges. DOI: 10.5772/2760
Additive Manufacturing Methods and Modeling Approaches”, MDPI Materials, IF = 4.934, Q2.
- Lead Guest Editor** for the Special Issues:
Compliant Mechanisms for Mechatronics, IEEE/ASME Trans. on Mechatronics, IF = 4.934, Q1.
Soft Mechatronics: Mechanics and Multi-physics of compliant transducers, Springer Int. Journal Meccanica, IF = 2.36, Q1-
Algorithms for computer aided Design, MDPI Algorithm, Cite Score Scopus 1.46
Application of Compliant Mechanisms in Robotics, MDPI Applied Science, IF=2.67, Q1.
- Guest Editor** for the Special Issues
TMECH/AIM 2022 Concurrent Submission, IEEE/ASME Trans. on Mechatronics, IF = 4.934, Q1.
TMECH/AIM 2020 Concurrent Submission, IEEE/ASME Trans. on Mechatronics, IF = 4.934, Q1.
Algorithms for Computer Aided Design, MDPI Algorithm, CSI=1.46.
- Memberships** **Chair** of American Society of Mechanical Engineers (ASME) - Italy Section.
Chair of ASME Technical Committee (TC) on Adaptive Systems, Dynamics & Control.
Member IEEE RAS TC on Sustainable Production & IEEE TC on Mechanisms and Design.
- Organization of Scientific Meetings** 2019/22: **Chair** for “Young Professionals Development” (3years) - ASME Int. Conf. (IC) on Smart Materials, Adaptive Structures and Intelligent Systems (SMASIS),
2011/22: **Co/Chair** for the Symposiums “Modeling, Simulation and Control of Adaptive Systems”
ASME SMASIS + Scientific & Technical Committee Member (for nine years).
2020: **Associate Editor** for: 1) IEEE/ASME AIM IC on Advanced Intelligent Mechatronics, US;
2) IEEE RAS/EMBS IC on Biomedical Robotics & Biomechanics, US.
2012/21: **Member of Scientific/Technical/Program Committee** for:
ISM2022, IC on Industry 4.0 and Smart Manufacturing, Austria;
ISM2021, IC on Industry 4.0 and Smart Manufacturing, Italy;
FAIM2020, IC on Flexible Automation and Intelligent Manufacturing, Greece;
I-RIM 2019, Italian Conf. on Robotics & Intelligent Machines, Italy;
ICMMMM2018, IC on Mechanical, Materials and Manufacturing, US;
FAIM2017, IC on Flexible Automation and Intelligent Manufacturing, Italy;
TE2018 IC on Transdisciplinary Engineering, Italy;
ICACT2012, IC on Advancements in Computing Technology, Korea.
2011/21: Chair for 15 focused sessions in Int. Conferences Worldwide.
- Scientific Topics** CAD/CAE-based multi-disciplinary optimization methods.
Integrated Design of Compliant Components for effective human/machine interaction.
Virtual Prototyping of Mechatronic Systems.
- Patents** 1.G. Berselli, L. Bruzzone: "Deformable inflatable wing with capability to modify, upon command, the aerodynamic profile". 102016000070114, Issued for Giovanni Berselli (pending), 2016.
2.G. Berselli: "Imballaggio Sovrapponibile". MO2007A000084, Issued for Samples System Service S.p.a., 2007
3.G. C. Modugno, G. Vassura, G. Berselli: "Dispositivo per la Movimentazione di Pazienti". RM2007A000252, patent issued for Università di Bologna, 2007.

- Technology transfer** **Scientific Coordinator** for the project “Flexible Multibody Modelling of the performance of a special machine for paper rolling”, funded by G.D Sp.a., Bologna (IT).
- Research leader** for the project “Integrated Design and Simulation of High-Dynamics Servomechanisms for Automatic Machines” funded with a grant by Borghi S.p.a., 41013 Castelfranco Emilia (IT).
- Research Consultant** for:
- EJ Europe s.r.l., Via Cesare Costa, 19/D, 41123 Modena (IT).
 - Top Campionature s.r.l., Via Lingualunga 21, 41014 Solignano (IT).
 - Samples System Service s.p.a., Via S. Anna 1, 41056, Savignano s. P. (IT).
- Research leader** for the project “Development of an automatic machine for the assembly of safety fasteners in hi-tech suitcases” funded by GT Line s.r.l, Crespellano (IT),
- Part of the Research Unit** for the projects:
- Development of a variable-geometry medical chair, funded by Ergotek S.r.l. Udine (IT).
 - Novel methods for automatic bending and glueing of carton packages” Emmeci S.P.A. Pieve Ripoli (IT).
 - Robotized system for the deposit of topping over hi-tech suitcases, funded by GT Line, Crespellano (IT).
 - Automatic assembly of a pressure valve for the automotive industry” funded by Laserline s.r.l. (IT).
- Research leader** for the project “Trajectory optimization in automatic machines for plastic film winding” funded by Sotemapack s.r.l., Anzola dell'Emilia (IT).
- Research leader** for the project “Analysis of thermic welding issues on plastic cases” funded by GIMA s.r.l., Anzola dell'Emilia (IT).
- Research leader** for the project “Application of new-generation linear electric motors as an alternative to traditional actuation” funded by TMC s.r.l, Cadriano (IT).

- Selected publications**
1. S. Li, G. Hao, Y. Chen, J. Zhu, G. Berselli, “Nonlinear Analysis of a Class of Inversion-Based Compliant Cross-Spring Pivots” Journal Of Mechanisms And Robotics, DOI: 10.1115/1.4052514, vol. 14(3), 031007 (14 pages), 2022- Q1
 2. G. Vazzoler, P. Bilancia, G. Berselli, M. Fontana, A. Frisoli, A. “Analysis and Preliminary Design of a Passive Upper Limb Exoskeleton”. IEEE Transactions on Medical Robotics And Bionics, DOI: 10.1109/TMRB.2022.3186903, pp. 1-12, 2022 - Q1
 3. P. Bilancia, M. Baggetta, G. Hao, G., Berselli “A variable section beams based Bi-BCM formulation for the kinetostatic analysis of cross-axis flexural pivots”. International Journal Of Mechanical Sciences, DOI: 10.1016/j.ijmecsci.2021.106587, vol. 205, p. 106587, 2022 - Q1
 4. P. Bilancia, G. Berselli “An Overview of Procedures and Tools for Designing Nonstandard Beam-Based Compliant Mechanisms” Computer Aided Design, DOI: 10.1016/j.cad.2021.103001, vol. 134, p. 1-19, 2022, - Q1
 5. P. Bilancia, G. Berselli, “Conceptual design and virtual prototyping of a wearable upper limb exoskeleton for assisted operations” International Journal on Interactive Design And Manufacturing, DOI: 10.1007/s12008-021-00779-9, pp. 1-15, 2021 - Q1
 6. M. Gadaleta, G. Berselli, M. Pellicciari, F. Grassia, “Extensive experimental investigation for the optimization of the energy consumption of a high payload industrial robot with open research dataset” Robotics And Computer-Integrated Manufacturing, DOI: 10.1016/j.rcim.2020.102046 - vol. 68, p. 1-13, 2021 - Q1
 7. P. Bilancia, M. Baggetta, G. Berselli, L. Bruzzone, P. Fanghella “Design of a bio-inspired contact-aided compliant wrist” Robotics and Computer-Integrated Manufacturing, DOI: 10.1016/j.rcim.2020.102028vol.67, p. 1-10, 2021 - Q1
 8. M. Verotti, G. Berselli, L. Bruzzone, M. Baggetta, P. Fanghella “Design, simulation and testing of an isotropic compliant mechanism” Precision Engineering, DOI: 10.1016/j.precisioneng.2021.07.018, vol. 72, p. 730-737, 2021 - Q1
 9. G. Berselli, P. Bilancia, L. Luzi “Project-based learning of advanced CAD/CAE tools in engineering education” International Journal On Interactive Design And Manufacturing, DOI: 10.1007/s12008-020-00687-4, vol. 14, p. 1071-1083, 2020- Q1
 10. P. Bilancia, G. Berselli “Design and testing of a monolithic compliant constant force mechanism” Smart Materials and Structures, DOI: 10.1088/1361-665X/ab6884, vol. 29, p. 044001, 2020 - Q1

11. P. Bilancia, G. Berselli, L. Bruzzone, P. Fanghella "A CAD/CAE Integration Framework for Analyzing and Designing Spatial Compliant Mechanisms". *Robotics and Computer-Integrated Manufacturing*, DOI: 10.1016/j.rcim.2018.07.015, vol. 56, pp. 287-302, 2019. I- Q1.
12. G. Berselli, G. Bigi, M. Pellicciari, R. Razzoli "Design Optimization of Cutting Parameters for a Class of Radially-Compliant Spindles via Virtual Prototyping Tools," *International Journal of Computer-Aided Engineering and Technology*, DOI: 10.1504/IJCAET.2019.098138, vol. 11, pp. 232-252, 2019 – Q3.
13. Martelli, M., Faggioni, N., Berselli, G. "Fuel saving in a marine propulsion plant by using a continuously variable transmission". *Proceedings of the Institution of Mechanical Engineers, Part M: Journal of Engineering for the Maritime Environment*, DOI: 10.1177/1475090218806977, vol. 233(4), 1007-1021, 2019- Q2.
14. F. Parvari Rad, R. Vertechy, G. Berselli, V. Parenti-Castelli, V. "Design and Stiffness Evaluation of a Compliant Joint with Parallel Architecture Realizing an Approximately Spherical Motion". *Actuators*, DOI: 10.3390/act7020020, vol. 7(2), 2018 - Q2.
15. L. Bruzzone, G. Berselli, P. Bilancia, P. Fanghella, "Quasi-Static Models of a Four-Bar Quick-Release Hook". *International Journal of Mechanics and Control*, 18(2), pp. 25-32, 2017.- Q3.
16. A. Vergnano, G. Berselli, G., M. Pellicciari, "Interactive simulation-based-training tools for manufacturing systems operators: an industrial case study". *International Journal on Interactive Design and Manufacturing*, DOI: 10.1007/s12008-016-0367-7, vol. 11(4), 785-797, 2017- Q2.
17. A. Albert, G. Berselli, L. Bruzzone, P. Fanghella, "Mechanical Design and Simulation of an Onshore Four-Bar Wave Energy Converter," *Renewable Energy*, DOI: 10.1016/j.renene.2017.07.089, vol. 114, pp. 766-774, 2017 - Q1.
18. M. Gadaleta, G. Berselli, M. Pellicciari, "Energy-Optimal Layout Design of Robotic Work Cells: Potential Assessment on an Industrial Case Study". *Robotics and Computer-Integrated Manufacturing*, DOI: 10.1016/j.rcim.2016.10.002, vol. 47, pp. 102-11, 2017 - Q1.
19. M. Gadaleta, G. Berselli, M. Pellicciari, M. Sposato, "A Simulation Tool for Computing Energy Optimal Motion Parameters of Industrial Robots" *Procedia Manufacturing*, DOI: 10.1016/j.promfg.2017.07.114, vol. 11, pp. 319-328, 2017 - Q2.
20. V. Vaschieri, M. Gadaleta, P. Bilancia, G. Berselli, R. Razzoli, "Virtual Prototyping of a Flexure-based RCC Device for Automated Assembly" *Procedia Manufacturing*, DOI: 10.1016/j.promfg.2017.07.121, vol. 11, pp. 380-388, 2017 - Q2.
21. P. Bilancia, G. Berselli, L. Bruzzone, P. Fanghella "A Practical Method for Determining the Pseudo-Rigid-Body Parameters of Spatial Compliant Mechanisms via CAE Tool" *Procedia Manufacturing*, DOI: 10.1016/j.promfg.2017.07.374, vol. 11, pp. 1709-1717, 2017 - Q2.
22. A. Vergnano, G. Berselli, M. Pellicciari, "Parametric virtual concepts in the early design of mechanical systems: a case study application", *Springer International Journal of Interactive Design and Manufacturing*, DOI: 10.1007/s12008-015-0295-y, vol. 12(2), pp. 331-340, 2017 - Q2.
23. F. Parvari Rad, G. Berselli, R. Vertechy, V. Parenti Castelli, "Design and Stiffness Analysis of a Compliant Spherical Chain with Three Degrees of Freedom". *Precision Engineering*, DOI: 10.1016/j.precisioneng.2016.06.011, vol. 47, pp. 1-9, 2017 - Q1.
24. G. Berselli, F. Balugani, M. Pellicciari, M. Gadaleta, "Energy-optimal motions for Servo-Systems: A comparison of spline interpolants and performance indexes using a CAD-based approach," *Robotics and Computer Integrated Manufacturing*, DOI: 10.1016/j.rcim.2016.01.003, vol. 40, pp. 55–65, 2016 - Q1.
25. F. Parvari Rad, R. Vertechy, G. Berselli, V. Parenti Castelli, "Analytical compliance analysis and finite element verification of spherical flexure hinges for spatial compliant mechanisms". *Mechanism and Machine Theory*, DOI: 10.1016/j.mechmachtheory.2016.01.010, vol. 101, pp. 168-180, 2016 - Q1.
26. F. Leali, A. Vergnano, F. Pini, M. Pellicciari, G. Berselli. "A Workcell Calibration Method for Enhancing Accuracy in Robot Machining of Aerospace Parts", *International Journal of Advanced Manufacturing Technology*, DOI: 10.1007/s00170-014-6025-y, 2014, vol. 85(4), pp. 47-55, 2016, (invited paper) - Q1.
27. G. Berselli, Q. Meng, R. Vertechy, V. Parenti Castelli. "An improved design method for the dimensional synthesis of flexure-based compliant mechanisms: optimization procedure and experimental validation". *Springer Meccanica*, DOI: 10.1007/s11012-015-0276-z, vol. 51(5), pp. 1209-1225, 2016 - Q1.
28. E. Oliva, G. Berselli, M. Pellicciari. A.O. Andrisano "An Engineering Method for the Power flow Assessment in servo-actuated automated machinery: mechatronic modelling and experimental evaluation" *Robotics and Computer Integrated Manufacturing*, DOI: 10.1016/j.rcim.2015.09.013, vol. 38, pp. 31-41, 2016 - Q1.
29. M. Pellicciari, G. Berselli, F. Balugani. "On Designing Optimal Trajectories for Servo-Actuated Mechanisms: Detailed Virtual Prototyping and Experimental Evaluation", *IEEE/ASME Transactions on Mechatronics*, DOI: 10.1109/TMECH.2014.2361759, 20(5), pp.2039-2052, 2015 - Q1.

30. G. Berselli, G. Scire` Mammano, E. Dragoni. "Design Of A Dielectric Elastomer Cylindrical Actuator With Quasi-Constant Available Thrust: Modelling Procedure and Experimental Validation". ASME Transactions, Journal of Mechanical Design, DOI: 10.1115/1.4028277, 136(12), 125001, 2014 - Q1.
31. D. Meike, M. Pellicciari, G. Berselli, "Energy Efficient Use of Multi-Robot Production Lines in the Automotive Industry: Detailed System Modeling and Optimization", IEEE Transaction on Automation Science and Engineering, DOI:10.1109/TASE.2013.2285813, vol. 11, no.3, pp. 798–809, 2014 - Q1.
32. G. Berselli, A. Guerra, G. Vassura. A.O. Andrisano "An Engineering Method for Comparing Selectively Compliant Joints in Robotic Structures". IEEE/ASME Transactions on Mechatronics, DOI: 0.1109/TMECH.2014.2315508, Vol. 19, No. 6, pp. 1882-1895, 2014 - Q1.
33. G. Palli, C. Melchiorri, G. Vassura, U. Scarcia, G. Berselli, A. Cavallo, G. De Maria, C. Natale, S. Pirozzi, C. May, F. Ficuciello, B. Siciliano. "The DEXMART Hand: Mechatronic Design and Experimental Evaluation of Synergy-Based Control for Human-Like grasping". SAGE International Journal of Robotic Research, DOI: 10.1177/0278364913519897, Vol. 33, No. 5, pp 799-824, 2014 - Q1.
34. C. Melchiorri, G. Palli, G. Berselli, G. Vassura. "Development of the UB-Hand IV: Overview of Design Solutions and Enabling Technologies". IEEE Robotics and Automation Magazine, DOI: 10.1109/MRA.2012.2225471, Vol. 20, No. 3, art. No. 6523131, pp.72-81, 2013 - Q1.
35. M. Pellicciari, G. Berselli, F. Leali, A. Vergnano. "A Method for Reducing the Energy Consumption of Pick-and-place Industrial Robots". IFAC, Mechatronics, DOI: 10.1016/j.mechatronics.2013.01.013, Vol. 23, No. 3, pp.326-334, 2013 - Q1.
36. G. Berselli, R. Vertechy, M. Babic, V. Parenti Castelli. "Dynamic Modeling and Experimental Evaluation of a Constant-force Dielectric Elastomer Actuator". SAGE Journal of Intelligent Material Systems and Structures, DOI: 10.1177/1045389X12457251, Vol. 24, No. 6, pp.779-791, 2013 - Q1.
37. R. Vertechy, G. Berselli, M. Bergamasco, V. Parenti Castelli. "Continuum Thermo-Electro-Mechanical Model for Electrostrictive Elastomers". SAGE Journal of Intelligent Material Systems and Structures, DOI: 10.1177/1045389X12455855, Vol. 24, No. 6, pp. 761-778, 2013 - Q1.
38. M. Pellicciari, C. Renzi, F. Leali, A.O. Andrisano, G. Berselli. "Selecting Alternatives in the Conceptual Design Phase: Application of Fuzzy-AHP and Pugh's Controlled Convergence". International Journal of Interactive Design and Manufacturing, DOI: 10.1007/s12008-013-0187-y, vol. 9(1), pp.1-17, 2013 - Q2.
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**Additional
information**

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV.

Genova 29/11/2022

