

Nikos G Tsagarakis

List of Publications by Year in descending order

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all docs

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docs citations

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times ranked

2741
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | On Perpendicular Curve-Based Task Space Trajectory Tracking Control With Incomplete Orientation Constraint. IEEE Transactions on Automation Science and Engineering, 2023, 20, 1244-1261. | 5.2 | 1 |
| 2 | An Angle-Axis Space-Based Orientability Index Characterizing Complete Orientations. IEEE/ASME Transactions on Mechatronics, 2022, 27, 880-891. | 5.8 | 1 |
| 3 | Toward a Plug-and-Work Reconfigurable Cobot. IEEE/ASME Transactions on Mechatronics, 2022, 27, 3219-3231. | 5.8 | 11 |
| 4 | Reconfigurable and Agile Legged-Wheeled Robot Navigation in Cluttered Environments With Movable Obstacles. IEEE Access, 2022, 10, 2429-2445. | 4.2 | 6 |
| 5 | A Generalized Index for Fault-Tolerant Control in Operational Space Under Free-Swinging Actuation Failure. IEEE Robotics and Automation Letters, 2022, 7, 1486-1493. | 5.1 | 2 |
| 6 | TelePhysicalOperation: Remote Robot Control Based on a Virtual "Marionette" Type Interaction Interface. IEEE Robotics and Automation Letters, 2022, 7, 2479-2486. | 5.1 | 6 |
| 7 | An efficient leg with series-parallel and biarticular compliant actuation: design optimization, modeling, and control of the eLeg. International Journal of Robotics Research, 2021, 40, 37-54. | 8.5 | 21 |
| 8 | A Whole-Body Control Framework Based on the Operational Space Formulation Under Inequality Constraints via Task-Oriented Optimization. IEEE Access, 2021, 9, 39813-39826. | 4.2 | 12 |
| 9 | Blending of Series-Parallel Compliant Actuation With Field Weakening Control for Explosive Motion Generation. IEEE Robotics and Automation Letters, 2021, 6, 2076-2083. | 5.1 | 2 |
| 10 | Omnidirectional Walking Pattern Generator Combining Virtual Constraints and Preview Control for Humanoid Robots. Frontiers in Robotics and AI, 2021, 8, 660004. | 3.2 | 1 |
| 11 | The Math of Tasks: A Domain Specific Language for Constraint-Based Task Specification. International Journal of Humanoid Robotics, 2021, 18, 2150008. | 1.1 | 1 |
| 12 | Study on operational space control of a redundant robot with un-actuated joints: experiments under actuation failure scenarios. Nonlinear Dynamics, 2021, 105, 331-344. | 5.2 | 4 |
| 13 | A Compliant Mechanism with Progressive Stiffness for Robotic Actuation. , 2021, , . | | 3 |
| 14 | Mechatronic Design and Control of a Light Weight Manipulator Arm for Mobile Platforms. , 2021, , . | | 5 |
| 15 | NSPG: An Efficient Posture Generator Based on Null-Space Alteration and Kinetostatics Constraints. Frontiers in Robotics and AI, 2021, 8, 715325. | 3.2 | 4 |
| 16 | Exo-Muscle: A Semi-Rigid Assistive Device for the Knee. IEEE Robotics and Automation Letters, 2021, 6, 8514-8521. | 5.1 | 6 |
| 17 | Locomotion Adaptation in Heavy Payload Transportation Tasks with the Quadruped Robot CENTAURO. , 2021, , . | | 5 |
| 18 | Modeling and Optimal Control for Rope-Assisted Rappelling Maneuvers. , 2021, , . | | 2 |

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| 19 | Minimum-Effort Task-based Design Optimization of Modular Reconfigurable Robots. , 2021, , . | | 3 |
| 20 | Agile Actions with a Centaur-Type Humanoid: A Decoupled Approach. , 2021, , . | | 1 |
| 21 | A Workspace Limit Approach for Teleoperation Based on Signed Distance Function. IEEE Robotics and Automation Letters, 2021, 6, 5589-5596. | 5.1 | 6 |
| 22 | Grasping with Embedded Synergies through a Reconfigurable Electric Actuation Topology. , 2021, , . | | 0 |
| 23 | Towards an Open-Source Hardware Agnostic Framework for Robotic End-Effectors Control. , 2021, , . | | 2 |
| 24 | Towards a Generic Grasp Planning Pipeline using End-Effector Specific Primitive Grasping Actions. , 2021, , . | | 2 |
| 25 | Remote mobile manipulation with the centauro robot: Full-body telepresence and autonomous operator assistance. Journal of Field Robotics, 2020, 37, 889-919. | 6.0 | 48 |
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| 30 | On the efficient control of series-parallel compliant articulated robots. , 2020, , . | | 5 |
| 31 | Smart Collaborative Systems for Enabling Flexible and Ergonomic Work Practices [Industry Activities]. IEEE Robotics and Automation Magazine, 2020, 27, 169-176. | 2.0 | 40 |
| 32 | Incomplete Orientation Mapping for Teleoperation With One DoF Master-Slave Asymmetry. IEEE Robotics and Automation Letters, 2020, 5, 5167-5174. | 5.1 | 12 |
| 33 | Multi-Contact Heavy Object Pushing With a Centaur-Type Humanoid Robot: Planning and Control for a Real Demonstrator. IEEE Robotics and Automation Letters, 2020, 5, 859-866. | 5.1 | 27 |
| 34 | The XBot Real-Time Software Framework for Robotics: From the Developer to the User Perspective. IEEE Robotics and Automation Magazine, 2020, 27, 133-143. | 2.0 | 23 |
| 35 | Robust Gait Synthesis Combining Constrained Optimization and Imitation Learning. , 2020, , . | | 3 |
| 36 | Cartesi/O: A ROS Based Real-Time Capable Cartesian Control Framework. , 2019, , . | | 37 |

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| 37 | Compliant Humanoids Moving Toward Rehabilitation Applications: Transparent Integration of Real-Time Control, Whole-Body Motion Generation, and Virtual Reality. IEEE Robotics and Automation Magazine, 2019, 26, 83-93. | 2.0 | 3 |
| 38 | Whole-Body Stabilization for Visual-Based Box Lifting with the COMAN+ Robot. , 2019, , . | | 4 |
| 39 | A Rolling Flexure Mechanism for Progressive Stiffness Actuators. , 2019, , . | | 5 |
| 40 | Reactive Walking Based on Upper-Body Manipulability: An application to Intention Detection and Reaction. , 2019, , . | | 5 |
| 41 | Versatile Reactive Bipedal Locomotion Planning Through Hierarchical Optimization. , 2019, , . | | 8 |
| 42 | A Self-Modulated Impedance Multimodal Interaction Framework for Human-Robot Collaboration. , 2019, , . | | 5 |
| 43 | Exploitation of Environment Support Contacts for Manipulation Effort Reduction of a Robot Arm. , 2019, , . | | 3 |
| 44 | Sparse Optimization of Contact Forces for Balancing Control of Multi-Legged Humanoids. IEEE Robotics and Automation Letters, 2019, 4, 1117-1124. | 5.1 | 4 |
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| 47 | Online Relative Footstep Optimization for Legged Robots Dynamic Walking Using Discrete-Time Model Predictive Control. , 2019, , . | | 15 |
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| 50 | Variable Configuration Planner for Legged-Rolling Obstacle Negotiation Locomotion: Application on the CENTAURO Robot. , 2019, , . | | 8 |
| 51 | Terrain Segmentation and Roughness Estimation using RGB Data: Path Planning Application on the CENTAURO Robot. , 2019, , . | | 16 |
| 52 | Agile Standing-up Control of Humanoids: Energy-based Reactive Contact Wrench Optimization with Strict Dynamic Consistency. , 2019, , . | | 3 |
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| 57 | Adaptive-Robust Control of a Class of EL Systems With Parametric Variations Using Artificially Delayed Input and Position Feedback. IEEE Transactions on Control Systems Technology, 2019, 27, 603-615. | 5.2 | 36 |
| 58 | A mixed real-time robot hardware abstraction layer (R-HAL). World Scientific Encyclopedia With Semantic Computing and Robotic Intelligence, 2019, , 153-159. | 0.0 | 0 |
| 59 | Design and Evaluation of a Wearable Skin Stretch Device for Haptic Guidance. IEEE Robotics and Automation Letters, 2018, 3, 524-531. | 5.1 | 59 |
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| 70 | From Non-Reactive to Reactive Walking in Humanoid Robots. , 2018, , . | | 1 |
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| 72 | The eLeg: A Novel Efficient Leg Prototype Powered by Adjustable Parallel Compliant Actuation Principles. , 2018, , . | | 8 |

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| 73 | An Overview on Principles for Energy Efficient Robot Locomotion. <i>Frontiers in Robotics and AI</i> , 2018, 5, 129. | 3.2 | 60 |
| 74 | Online Joint Stiffness Transfer from Human Arm to Anthropomorphic Arm. , 2018, , . | | 5 |
| 75 | A Study on Low-Drift State Estimation for Humanoid Locomotion, Using LiDAR and Kinematic-Inertial Data Fusion. , 2018, , . | | 4 |
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| 79 | Enhanced Explosive Motion for Torque Controlled Actuators Through Field Weakening Control. , 2018, , . | | 4 |
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| 83 | Online Falling-Over Control of Humanoids Exploiting Energy Shaping and Distribution Methods. , 2018, , . | | 5 |
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| 97 | Overview of Gait Synthesis for the Humanoid COMAN. Journal of Bionic Engineering, 2017, 14, 15-25. | 5.0 | 38 |
| 98 | A study of nonlinear forward models for dynamic walking. , 2017, , . | | 2 |
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| 100 | RRT-based motion planning with sampling in Redundancy space for robots with anthropomorphic arms. , 2017, , . | | 2 |
| 101 | A novel human effort estimation method for knee assistive exoskeletons. , 2017, 2017, 1266-1272. | | 12 |
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| 113 | Synergy-Based Bilateral Port: A Universal Control Module for Tele-Manipulation Frameworks Using Asymmetric Master-Slave Systems. <i>Frontiers in Bioengineering and Biotechnology</i> , 2017, 5, 19. | 4.1 | 8 |
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| 135 | OpenSoT: A whole-body control library for the compliant humanoid robot COMAN. , 2015, , . | | 47 |
| 136 | A general whole-body compliance framework for humanoid robots. , 2015, , . | | 2 |
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| 141 | On the role of robot configuration in Cartesian stiffness control. , 2015, , . | | 34 |
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| 146 | Can active impedance protect robots from landing impact?. , 2014, , . | | 14 |
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| 148 | Walking in the resonance with the COMAN robot with trajectories based on human kinematic motion primitives (kMPs). Autonomous Robots, 2014, 36, 331-347. | 4.8 | 18 |
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| 153 | The patched intrinsic tactile object: A tool to investigate human grasps. , 2014, , . | | 11 |
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| 161 | COMpliant huMANoid COMAN: Optimal joint stiffness tuning for modal frequency control. , 2013, , . | | 172 |
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| 165 | An attractor-based Whole-Body Motion Control (WBMC) system for humanoid robots. , 2013, , . | | 23 |
| 166 | Stiffness Design for a Spatial Three Degrees of Freedom Serial Compliant Manipulator Based on Impact Configuration Decomposition. Journal of Mechanisms and Robotics, 2013, 5, . | 2.2 | 20 |
| 167 | Gravity compensation control of compliant joint systems with multiple drives. , 2013, , . | | 11 |
| 168 | A compliant humanoid walking strategy based on the switching of state feedback gravity compensation controllers. , 2013, , . | | 11 |
| 169 | Tele-Impedance based stiffness and motion augmentation for a knee exoskeleton device. , 2013, , . | | 43 |
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| 176 | The role of physical damping in compliant actuation systems. , 2012, , . | | 14 |
| 177 | Efficient human-like walking for the compliant huMANoid COMAN based on linematic Motion Primitives (kMPs). , 2012, , . | | 4 |
| 178 | YAW MOMENT COMPENSATION FOR BIPEDAL ROBOTS VIA INTRINSIC ANGULAR MOMENTUM CONSTRAINT. International Journal of Humanoid Robotics, 2012, 09, 1250033. | 1.1 | 40 |
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| 183 | Walking trajectory generation for humanoid robots with compliant joints: Experimentation with COMAN humanoid. , 2012, , . | | 8 |
| 184 | How design can affect the energy required to regulate the stiffness in variable stiffness actuators. , 2012, , . | | 16 |
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| 187 | Design, modeling and control of a series elastic actuator for an assistive knee exoskeleton. , 2012, , . | | 38 |
| 188 | Comparison of various active impedance control approaches, modeling, implementation, passivity, stability and trade-offs. , 2012, , . | | 38 |
| 189 | A human-like walking for the COmpliant huMANoid COMAN based on CoM trajectory reconstruction from kinematic Motion Primitives. , 2011, , . | | 27 |
| 190 | Orientation discrimination of patterned surfaces through an actuated and non-actuated tactile display. , 2011, , . | | 4 |
| 191 | AwAS-II: A new Actuator with Adjustable Stiffness based on the novel principle of adaptable pivot point and variable lever ratio. , 2011, , . | | 138 |
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| 193 | A new variable stiffness actuator (CompAct-VSA): Design and modelling. , 2011, , . | | 133 |
| 194 | Compliant joint modification and real-time dynamic walking implementation on bipedal robot cCub. , 2011, , . | | 18 |
| 195 | A decoupled impedance observer for a variable stiffness robot. , 2011, , . | | 18 |
| 196 | A new variable stiffness actuator (CompAct-VSA): Design and modelling. , 2011, , . | | 11 |
| 197 | Water/air performance analysis of a fluidic muscle. , 2010, , . | | 22 |
| 198 | Human Tactile Ability to Discriminate Variations in Small Ridge Patterns through a Portable-Wearable Tactile Display. , 2010, , . | | 2 |

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