

Gaetano Cascini

List of Publications by Year in descending order

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Version: 2024-02-01

108
papers

1,371
citations

394421

19
h-index

434195

31
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118
all docs

118
docs citations

118
times ranked

844
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | A bio-inspired approach for boosting innovation in the separation technology sector. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2022, 236, 4533-4550. | 2.1 | 2 |
| 2 | Spatial Augmented Reality as a Visualization Support for Engineering Analysis. Lecture Notes in Mechanical Engineering, 2022, , 103-115. | 0.4 | 0 |
| 3 | Perspectives on design creativity and innovation research: 10 years later. International Journal of Design Creativity and Innovation, 2022, 10, 1-30. | 1.2 | 12 |
| 4 | Design methodology for mass personalisation enabled by digital manufacturing. Design Science, 2022, 8, . | 2.1 | 3 |
| 5 | Design spaces and EEG frequency band power in constrained and open design. International Journal of Design Creativity and Innovation, 2022, 10, 193-221. | 1.2 | 2 |
| 6 | Brain activity in constrained and open design: the effect of gender on frequency bands. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2022, 36, . | 1.1 | 6 |
| 7 | Digital Artefacts and The Role of Digital Affordance. Proceedings of the Design Society, 2022, 2, 11-20. | 0.8 | 2 |
| 8 | OVERCOMING AUGMENTED REALITY ADOPTION BARRIERS IN DESIGN: A MIXED PROTOTYPING CONTENT AUTHORING TOOL SUPPORTED BY COMPUTER VISION. Proceedings of the Design Society, 2021, 1, 2359-2368. | 0.8 | 2 |
| 9 | Effects of Function-Based Models in Biologically Inspired Design. Journal of Integrated Design and Process Science, 2021, 24, 85-108. | 0.5 | 0 |
| 10 | CORRELATING DESIGN PERFORMANCE TO EEG ACTIVATION: EARLY EVIDENCE FROM EXPERIMENTAL DATA. Proceedings of the Design Society, 2021, 1, 771-780. | 0.8 | 8 |
| 11 | Exploring Tablet Interfaces for Product Appearance Authoring in Spatial Augmented Reality. International Journal of Human Computer Studies, 2021, 156, 102719. | 5.6 | 2 |
| 12 | Towards 3D printed saxophone mouthpiece personalization: Acoustical analysis of design variations. Acta Acustica, 2021, 5, 46. | 1.0 | 2 |
| 13 | Testing ideation performance on a large set of designers: effects of analogical distance. International Journal of Design Creativity and Innovation, 2020, 8, 31-45. | 1.2 | 12 |
| 14 | Impact of Design Representations on Creativity of Design Outcomes. Journal of Integrated Design and Process Science, 2020, 23, 31-60. | 0.5 | 7 |
| 15 | Value analysis for customizable modular product platforms: theory and case study. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2020, 31, 123-140. | 2.1 | 23 |
| 16 | Exploring the use of AR technology for co-creative product and packaging design. Computers in Industry, 2020, 123, 103308. | 9.9 | 37 |
| 17 | What can we learn from COVID-19 pandemic for design creativity research?. International Journal of Design Creativity and Innovation, 2020, 8, 141-143. | 1.2 | 3 |
| 18 | Application of Systematic Design Methods to Cultural Heritage Preservation. IOP Conference Series: Materials Science and Engineering, 2020, 949, 012029. | 0.6 | 3 |

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| 19 | AN EXPERIMENT-DRIVEN MASS-PERSONALISATION MODEL: APPLICATION TO SAXOPHONE MOUTHPIECE PRODUCTION. Proceedings of the Design Society DESIGN Conference, 2020, 1, 1037-1046. | 0.8 | 5 |
| 20 | DO ALL CREATIVE STIMULI WORK THE SAME? INSIGHTS FROM A WORKSHOP WITH PROFESSIONALS. Proceedings of the Design Society DESIGN Conference, 2020, 1, 1531-1540. | 0.8 | 0 |
| 21 | ANALYSING THE EFFECT OF SELF-EFFICACY AND INFLUENCERS ON DESIGN TEAM PERFORMANCE. Proceedings of the Design Society DESIGN Conference, 2020, 1, 2571-2580. | 0.8 | 6 |
| 22 | Design computing and cognition. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 2020, 34, 128-131. | 1.1 | 2 |
| 23 | Investigating users'™ reactions to surprising products. Design Studies, 2020, 69, 100946. | 3.1 | 18 |
| 24 | Improving the Efficiency of Design Protocol Analysis: An Approach to Speed Up the Coding Stage. Lecture Notes in Mechanical Engineering, 2020, , 612-624. | 0.4 | 1 |
| 25 | Extracting and Analysing Design Process Data from Log Files of ICT Supported Co-Creative Sessions. Proceedings of the Design Society International Conference on Engineering Design, 2019, 1, 129-138. | 0.6 | 4 |
| 26 | A Computational Framework for Exploring the Socio-Cognitive Features of Teams and their Influence on Design Outcomes. Proceedings of the Design Society International Conference on Engineering Design, 2019, 1, 1-10. | 0.6 | 5 |
| 27 | Impact of Inventive Design Education through the Correlation between Students'™ Grades and Individual Talent. Proceedings of the Design Society International Conference on Engineering Design, 2019, 1, 529-538. | 0.6 | 0 |
| 28 | A decision support model to assess technological paradigms. International Journal of Technology Management, 2019, 80, 61. | 0.5 | 4 |
| 29 | Sources of creativity stimulation for designing the next generation of technical systems: correlations with R&D designers'™ performance. Research in Engineering Design - Theory, Applications, and Concurrent Engineering, 2019, 30, 133-153. | 2.1 | 15 |
| 30 | Investigating the future of the fuzzy front end: towards a change of paradigm in the very early design phases?. Journal of Engineering Design, 2018, 29, 644-664. | 2.3 | 16 |
| 31 | Surprise and design creativity: investigating the drivers of unexpectedness. International Journal of Design Creativity and Innovation, 2017, 5, 29-47. | 1.2 | 11 |
| 32 | Classification of Change-Related Illities Based on a Literature Review of Engineering Changes. Journal of Integrated Design and Process Science, 2017, 20, 3-23. | 0.5 | 7 |
| 33 | On the Factors Affecting Design Education Within a Multi-Disciplinary Class. Journal of Integrated Design and Process Science, 2017, 21, 21-44. | 0.5 | 7 |
| 34 | Exploring the Cognitive Dynamics of Product Appreciation. , 2017, , 555-573. | | 1 |
| 35 | Engineering Grand Challenges Demand for Trans-Disciplinary Design Science. Journal of Integrated Design and Process Science, 2016, 19, 1-2. | 0.5 | 0 |
| 36 | Services Evaluation and Improvement with Systematic Innovation Tools. Procedia CIRP, 2016, 39, 225-230. | 1.9 | 1 |

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|----|---|-----|-----------|
| 37 | A UX Model for the Communication of Experience Affordances. <i>Design Issues</i> , 2016, 32, 3-18. | 0.4 | 6 |
| 38 | Product Planning techniques: investigating the differences between research trajectories and industry expectations. <i>Research in Engineering Design - Theory, Applications, and Concurrent Engineering</i> , 2016, 27, 367-389. | 2.1 | 18 |
| 39 | Design for innovation “ A methodology to engineer the innovation diffusion into the development process. <i>Computers in Industry</i> , 2016, 75, 46-57. | 9.9 | 18 |
| 40 | Adding quality of life to design for Eco-Efficiency. <i>Journal of Cleaner Production</i> , 2016, 112, 3211-3221. | 9.3 | 12 |
| 41 | Improving Self-efficacy in Solving Inventive Problems with TRIZ. <i>Creativity in the Twenty First Century</i> , 2016, , 195-213. | 0.6 | 7 |
| 42 | Preliminary Studies on Human Approaches to Inventive Design Tasks with a TRIZ Perspective. <i>Procedia Engineering</i> , 2015, 131, 39-49. | 1.2 | 4 |
| 43 | ARIZ85 and Patent-driven Knowledge Support. <i>Procedia Engineering</i> , 2015, 131, 291-302. | 1.2 | 1 |
| 44 | FORMAT “ Building an Original Methodology for Technology Forecasting through Researchers Exchanges between Industry and Academia. <i>Procedia Engineering</i> , 2015, 131, 1084-1093. | 1.2 | 8 |
| 45 | OTSM-TRIZ Games: Enhancing Creativity of Engineering Students. <i>Procedia Engineering</i> , 2015, 131, 711-720. | 1.2 | 7 |
| 46 | OTSM-TRIZ Network of Problems for Evaluating the Design Skills of Engineering Students. <i>Procedia Engineering</i> , 2015, 131, 689-700. | 1.2 | 10 |
| 47 | Linking TRIZ to Conceptual Design Engineering Approaches. <i>Procedia Engineering</i> , 2015, 131, 1031-1040. | 1.2 | 15 |
| 48 | Product Architecture Definition: Evaluating the Potentiality of TRIZ Tools. <i>Procedia Engineering</i> , 2015, 131, 359-371. | 1.2 | 5 |
| 49 | Modelling the Dynamics of Products and Processes Requirements. <i>Procedia Engineering</i> , 2015, 131, 661-671. | 1.2 | 2 |
| 50 | Techno-economic Classification of Contradictions and Related Strategies of Solution. <i>Procedia Engineering</i> , 2015, 131, 757-766. | 1.2 | 1 |
| 51 | An OTSM-TRIZ Based Framework Towards the Computer-Aided Identification of Cognitive Processes in Design Protocols. , 2015, , 99-117. | | 10 |
| 52 | Production Processes Modeling for Identifying Technology Substitution Opportunities. <i>Procedia Engineering</i> , 2015, 131, 14-29. | 1.2 | 2 |
| 53 | About Integration Opportunities between TRIZ and Biomimetics for Inventive Design. <i>Procedia Engineering</i> , 2015, 131, 3-13. | 1.2 | 16 |
| 54 | Business Process Reengineering driven by customer value: a support for undertaking decisions under uncertainty conditions. <i>Computers in Industry</i> , 2015, 68, 132-147. | 9.9 | 28 |

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| 55 | UNO-BID: unified ontology for causal-function modeling in biologically inspired design. International Journal of Design Creativity and Innovation, 2015, 3, 177-210. | 1.2 | 13 |
| 56 | Situating Needs and Requirements in a Multi-stakeholder Context. , 2015, , 345-360. | | 2 |
| 57 | A framework for user experience, needs and affordances. Design Studies, 2014, 35, 160-179. | 3.1 | 130 |
| 58 | Multi-objective topology optimization through GA-based hybridization of partial solutions. Engineering With Computers, 2013, 29, 287-306. | 6.1 | 12 |
| 59 | An Algorithm for Supply Chain Integration based on OTSM-TRIZ. Procedia, Social and Behavioral Sciences, 2013, 75, 383-396. | 0.5 | 11 |
| 60 | Mapping Causal Relationships and Conflicts among Design Parameters and System Requirements. Computer-Aided Design and Applications, 2013, 10, 643-662. | 0.6 | 10 |
| 61 | Assessing creativity of design projects: criteria for the service engineering field. International Journal of Design Creativity and Innovation, 2013, 1, 131-159. | 1.2 | 9 |
| 62 | Situating needs and requirements in the FBS framework. Design Studies, 2013, 34, 636-662. | 3.1 | 53 |
| 63 | Supporting product design by anticipating the success chances of new value profiles. Computers in Industry, 2013, 64, 421-435. | 9.9 | 24 |
| 64 | Question/answer techniques within CAD environments: An Investigation about the most Effective Interfaces. Computer-Aided Design and Applications, 2013, 10, 905-917. | 0.6 | 2 |
| 65 | Integrated Model for Technology Assessment and Expected Evolution: A Case Study in the Chilean Mining Industry. Journal of Integrated Design and Process Science, 2013, 17, 53-80. | 0.5 | 3 |
| 66 | About the Introduction of a Dialogue-Based Interaction within CAD Systems. Computer-Aided Design and Applications, 2013, 10, 499-514. | 0.6 | 1 |
| 67 | Maintenance optimisation for integrated planning. , 2013, , 651-658. | | 2 |
| 68 | Assessing the Performance of Computerized Tools for Inventive Design: Insights From Unsatisfactory Outcomes. , 2013, , 93-103. | | 1 |
| 69 | Investigating the Patterns of Value-Oriented Innovations in Blue Ocean Strategy. International Journal of Innovation Science, 2012, 4, 123-142. | 2.7 | 25 |
| 70 | TRIZ-based Anticipatory Design of Future Products and Processes. Journal of Integrated Design and Process Science, 2012, 16, 29-63. | 0.5 | 35 |
| 71 | Model and algorithm for computer-aided inventive problem analysis. CAD Computer Aided Design, 2012, 44, 961-986. | 2.7 | 47 |
| 72 | IPPR Implementation. Springer Series in Advanced Manufacturing, 2012, , 47-85. | 0.5 | 0 |

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| 73 | Computer-aided embodiment design through the hybridization of mono objective optimizations for efficient innovation process. Computers in Industry, 2011, 62, 384-397. | 9.9 | 16 |
| 74 | Network of contradictions analysis and structured identification of critical control parameters. Procedia Engineering, 2011, 9, 3-17. | 1.2 | 31 |
| 75 | Systematizing new value proposition through a TRIZ-based classification of functional features. Procedia Engineering, 2011, 9, 103-118. | 1.2 | 15 |
| 76 | Supporting sustainable innovation through TRIZ system thinking. Procedia Engineering, 2011, 9, 145-156. | 1.2 | 22 |
| 77 | Correlations between the evolution of contradictions and the law of identity increase. Procedia Engineering, 2011, 9, 236-250. | 1.2 | 19 |
| 78 | Networks of trends: systematic definition of evolutionary scenarios. Procedia Engineering, 2011, 9, 355-367. | 1.2 | 17 |
| 79 | From design optimization systems to geometrical contradictions. Procedia Engineering, 2011, 9, 473-483. | 1.2 | 5 |
| 80 | Systematic design through the integration of TRIZ and optimization tools. Procedia Engineering, 2011, 9, 674-679. | 1.2 | 27 |
| 81 | Towards more visible scientific findings in TRIZ communities through ETRIA. Procedia Engineering, 2011, 9, 1-2. | 1.2 | 0 |
| 82 | Wood pellet manufacturing improvements through product-driven process value analysis. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2011, 225, 761-772. | 2.4 | 2 |
| 83 | Computer-Aided Problem Solving - Part 1: Objectives, Approaches, Opportunities. International Federation for Information Processing, 2011, , 117-131. | 0.4 | 2 |
| 84 | From Computer-Aided (Detailed) Design to Automatic Topology and Shape Generation. , 2011, , 15-35. | | 1 |
| 85 | Product-Driven Process Value Analysis. , 2011, , 387-396. | | 0 |
| 86 | Process value analysis for business process re-engineering. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2010, 224, 305-327. | 2.4 | 17 |
| 87 | Integrated Computer-Aided Innovation: The PROSIT approach. Computers in Industry, 2009, 60, 629-641. | 9.9 | 30 |
| 88 | A Novel Paradigm for Computer-Aided Design: TRIZ-Based Hybridization of Topologically Optimized Density Distributions. IFIP Advances in Information and Communication Technology, 2009, , 38-50. | 0.7 | 0 |
| 89 | Business re-engineering through integration of methods and tools for process innovation. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2008, 222, 1715-1728. | 2.4 | 9 |
| 90 | Measuring patent similarity by comparing inventions functional trees. International Federation for Information Processing, 2008, , 31-42. | 0.4 | 38 |

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| 91 | Computer-aided analysis of patents and search for TRIZ contradictions. International Journal of Product Development, 2007, 4, 52. | 0.2 | 107 |
| 92 | Computer-Aided Patent Analysis: finding invention peculiarities. , 2007, , 167-178. | | 17 |
| 93 | Enhancing interoperability in the design process, the PROSIT approach. , 2007, , 189-199. | | 8 |
| 94 | Selection and Evaluation of PLM Tools for Competitive Product Development. , 2006, , 351-362. | | 0 |
| 95 | Integrated design of turbomachinery through a STEP-XML platform for data exchange. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2005, 219, 547-554. | 2.4 | 6 |
| 96 | Natural Language Processing of Patents and Technical Documentation. Lecture Notes in Computer Science, 2004, , 508-520. | 1.3 | 53 |
| 97 | State-of-the-Art and Trends of Computer-Aided Innovation Tools. , 2004, , 461-470. | | 9 |
| 98 | Plastics design: integrating TRIZ creativity and semantic knowledge portals. Journal of Engineering Design, 2004, 15, 405-424. | 2.3 | 43 |
| 99 | A Methodology for Evaluating the Adoption of Knowledge and Innovation Management Tools in a Product Development Process. , 2003, , . | | 2 |
| 100 | ROLLING CONTACT FORCE ENERGY RECONSTRUCTION. Journal of Sound and Vibration, 2000, 236, 185-192. | 3.9 | 4 |
| 101 | MEASUREMENT OF THE LATERAL NOISE EMISSION OF AN UIC 60 RAIL WITH A CUSTOM DEVICE. Journal of Sound and Vibration, 2000, 231, 653-665. | 3.9 | 5 |
| 102 | HIGH-FREQUENCY MOBILE INPUT RECONSTRUCTION ALGORITHM (HF-MIRA) APPLIED TO FORCES ACTING ON A DAMPED LINEAR MECHANICAL SYSTEM. Mechanical Systems and Signal Processing, 1998, 12, 255-268. | 8.0 | 6 |
| 103 | Time Domain Model of the Vertical Dynamics of a Railway Track up to 5 kHz. Vehicle System Dynamics, 1998, 30, 1-15. | 3.7 | 9 |
| 104 | Detection of corrugation and wheel flats of railway wheels using energy and cepstrum analysis of rail acceleration. Proceedings of the Institution of Mechanical Engineers, Part F: Journal of Rail and Rapid Transit, 1997, 211, 109-116. | 2.0 | 29 |
| 105 | REAL-TIME CODING METHOD FOR CAPTURE OF ARTEFACT-CENTRIC INTERACTIONS IN CO-CREATIVE DESIGN SESSIONS. , 0, , . | | 3 |
| 106 | ANALYSIS OF CO-DESIGN SCENARIOS AND ACTIVITIES FOR THE DEVELOPMENT OF A SPATIAL-AUGMENTED REALITY DESIGN PLATFORM. , 0, , . | | 12 |
| 107 | CODING SCHEMES FOR THE ANALYSIS OF ICT SUPPORTED CO-CREATIVE DESIGN SESSIONS. , 0, , . | | 5 |
| 108 | Influencers in design teams: a computational framework to study their impact on idea generation. Artificial Intelligence for Engineering Design, Analysis and Manufacturing: AIEDAM, 0, , 1-21. | 1.1 | 1 |