

Advanced solar envelope generation

De Luca, Francesco Regenerative design in digital practice : a handbook for the built environment 2019 / p. 123-128 : ill
[Regenerative...](#)

Advances in climatic form finding in architecture and urban design

De Luca, Francesco Energies 2023 / art. 3935 <https://doi.org/10.3390/en16093935> [Journal metrics at Scopus](#) [Article at Scopus](#)
[Journal metrics at WOS](#) [Article at WOS](#)

Analysis of the insolation criteria for nearly-zero energy buildings in Estonia

Voll, Hendrik; De Luca, Francesco; Pavlovas, Vitalis Science and technology for the built environment 2016 / p. 939-950 : ill
<https://doi.org/10.1080/23744731.2016.1195657> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Analyzing the fulfillment of daylight and overheating requirements in residential and office buildings in Estonia

Sepulveda Luque, Abel; De Luca, Francesco; Thalfeldt, Martin; Kurnitski, Jarek Building and environment 2020 / art. 107036, 12 p <https://doi.org/10.1016/j.buildenv.2020.107036> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Assessing the applicability of the European standard EN 17037:2018 for office spaces in a cold climate

Sepulveda Luque, Abel; De Luca, Francesco; Varjas, Toivo; Kurnitski, Jarek Building and environment 2022 / art. 109602
<https://doi.org/10.1016/j.buildenv.2022.109602> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Building cluster optimization to integrate energy performance and outdoor thermal comfort

De Luca, Francesco; Naboni, Emanuele; Lobaccaro, Gabriele; **Sepulveda Luque, Abel** 2020 Proceedings of the Symposium on Simulation for Architecture and Urban Design 2020 / p. 345-348 : ill https://www.simaud.org/proceedings/download.php?f=SimAUD2020_Proceedings_HiRes.pdf

Building morphology influence on outdoor comfort in urban environments. An analysis through machine learning

Eslamirad, Nasim; De Luca, Francesco; Lylykangas, Kimmo Sakari Proceedings of the 12th Annual Symposium on Simulation for Architecture and Urban Design 2021 <http://www.simaud.org/2021/program.php>

Challenges and ways forward for performance-driven and simulation-based computational design for sustainable cities and communities

De Luca, Francesco Regenerating the City Performance-driven and Simulation-based Computational Design for Sustainable Cities and Communities : proceedings of the 9th Regional International Symposium on Education and Research in Computer Aided Architectural Design in Europe, Tallinn University of Technology, 15-16 June 2023 2023 / p. 189-192
<https://digikogu.taltech.ee/et/Item/c29fc911-ec34-45da-afe6-bc1e8515e15d>

Classification of the energy production potential of water lens solar concentrators using machine learning

Zarrinkafsh, Hamidreza; **Eslamirad, Nasim; De Luca, Francesco** Journal of Physics: Conference Series 2021 / art. 012022, 6 p. : ill
<https://doi.org/10.1088/1742-6596/2042/1/012022> [Conference proceeding at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Comparison of static and dynamic shading systems for office buildings energy consumption and cooling load assessment

De Luca, Francesco; Voll, Hendrik; Thalfeldt, Martin Management of environmental quality : an international journal 2018 / p. 978-998 : ill <https://doi.org/10.1108/MEQ-01-2018-0008> [Journal metrics at Scopus](#) [Article at Scopus](#)

Computational method for variable objectives and context aware solar envelopes generation

De Luca, Francesco; Voll, Hendrik 2017 Proceedings of the Symposium on Simulation for Architecture and Urban Design 2017 / p. 335-342 : ill <http://resolver.tudelft.nl/uuid:4857e388-c354-47a3-9671-0bd8038f76bc>

A computational workflow for generating a voxel-based design approach based on subtractive shading envelopes and attribute information of point cloud data

Alkadri, Miktha Farid; De Luca, Francesco; Turrin, Michel; Sariyildiz, Sevil Remote sensing 2020 / art. 2561 ; 28 p. : ill
<https://doi.org/10.3390/rs12162561> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Concentrated solar power (CSP) for sustainable architecture to supply domestic hot water and heating loads of buildings

Zarrinkafsh, Hamidreza; **Eslamirad, Nasim; De Luca, Francesco** Journal of physics : conference series 2021 / art. 012110, p. 1-6 : ill
<https://doi.org/10.1088/1742-6596/2042/1/012110> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Data generative machine learning model for the assessment of outdoor thermal and wind comfort in a northern urban environment

Eslamirad, Nasim; De Luca, Francesco; Lylykangas, Kimmo Sakari; Ben Yahia, Sadok Frontiers of architectural research 2023 / p. 541-555 : ill <https://doi.org/10.1016/j.foar.2022.12.001> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Data-driven urban modelling : the case of explainable detection of urban heat island = Andmepõhine linnamodelleerimine : soojussaarte seletatav tuvastamine

Eslamirad, Nasim 2023 https://www.ester.ee/record=b5645371*est <https://doi.org/10.23658/taltech.68/2023>
<https://digikogu.taltech.ee/et/Item/ff9725f6-fc34-474c-ad5b-0ed6128127ee> https://www.ester.ee/record=b5645371*est

Daylight and overheating prediction formulas for building design in a cold climate

Sepulveda Luque, Abel; De Luca, Francesco; Kurnitski, Jarek Journal of building engineering 2022 / art. 103532, 15 p. : ill
<https://doi.org/10.1016/j.jobbe.2021.103532> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Daylighting and energy performance design for single floor commercial hall buildings

De Luca, Francesco; Simson, Raimo; Voll, Hendrik; Kurnitski, Jarek Management of environmental quality : an international journal 2018 / p. 722-739 : ill <https://doi.org/10.1108/MEQ-10-2017-0110> [Journal metrics at Scopus](#) [Article at Scopus](#)

Delightful daylighting : a framework for describing the experience of daylighting in Nordic homes and 'coupling it with quantitative assessments

Viikberg, Hanna; Sepulveda Luque, Abel; De Luca, Francesco Energies 2022 / art. 1815 <https://doi.org/10.3390/en15051815>
[Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Digital tools to support district regenerative design and scale jumping

Naboni, Emanuele; De Luca, Francesco Scale Jumping: Regenerative Systems Thinking within the Built Environment. A guidebook for regenerative implementation: Interactions, tools, platforms, metrics, practice 2021 / p. 179–196 <https://www.eurestore.eu/wp-content/uploads/2021/10/Restore-WG5.pdf>

Dynamic calculations of thermal bridges in curtain wall and its effects on cooling loads and thermal delay

Cahyadi, Muhammad Rafif; Alkadri, Miktha Farid; De Luca, Francesco Proceedings of the 28th International Conference on Computer-Aided Architectural Design Research in Asia (CAADRIA 2023), 21-23 March 2023 ; vol. 2 2023 / p. 441–450 : ill
<https://doi.org/10.52842/conf.caadria.2023.2.441>

Early design clustering method considering equitable daylight distribution in the adaptive re-use of heritage buildings

Szentesi-Nejur, Szende; Nejur, Andrei; De Luca, Francesco; Madelat, Payam eCAADe 2023 : Digital Design Reconsidered : Proceedings of the 41st Conference on Education and Research in Computer Aided Architectural Design in Europe ; vol. 2 Proceedings of the International Conference on Education and Research in Computer Aided Architectural Design in Europe 2023 / p. 105-114 <https://doi.org/10.52842/conf.ecaade.2023.2.105> [Conference proceedings at Scopus](#) [Article at Scopus](#)

eCAADe RIS 2023 : Regenerating the City Performance-driven and Simulationbased Computational Design for Sustainable Cities and Communities : proceedings of the 9th Regional International Symposium on Education and Research in Computer Aided Architectural Design in Europe, 15-16 June 2023, Tallinn University of Technology 2023 <https://digikogu.taltech.ee/et/Item/c29fc911-ec34-45da-afe6-bc1e8515e15d>

Electric lighting predictions in the energy calculation methods

De Luca, Francesco; Simson, Raimo; Voll, Hendrik; Kurnitski, Jarek Improving energy efficiency in commercial buildings and smart communities 2020 / p. 123-141 https://doi.org/10.1007/978-3-030-31459-0_9

Emergent, adaptive and responsive urban landscape design strategies

De Luca, Francesco Acta architecturae naturalis = Maastikuarhitektuurseid uurimusi 2018 / p. 20–32 : ill
<https://www.maastikuarhitektuur.ee/acta/article/view/64/54> https://www.ester.ee/record=b2731314*est

Energy and daylighting performance design of skylights and clerestories in a large hall retail building

De Luca, Francesco; Simson, Raimo; Kurnitski, Jarek CLIMA 2016 - proceedings of the 12th REHVA World Congress. Vol. 2 2016 / [10] p. : ill http://vbn.aau.dk/files/233715392/paper_655.pdf

Environmental performance-driven urban design: parametric design method for the integration of daylight and urban comfort analysis in cold climates

De Luca, Francesco Computer-aided architectural design. "Hello, Culture" : 18th International Conference, CAAD Futures 2019, Daejeon, Republic of Korea, June 26–28, 2019 : selected papers 2019 / p. 15-31 https://doi.org/10.1007/978-981-13-8410-3_2
[Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Evaluating daylight factor standard through climate based daylight simulations and overheating regulations in Estonia

De Luca, Francesco; Kiil, Martin; Simson, Raimo; Kurnitski, Jarek; Murula, Rein Proceedings of Building Simulation 2019 : 16th IBPSA International Conference and Exhibition, 2-4 Sept., Rome 2020 / p. 3968-3975 : ill
<https://doi.org/10.26868/25222708.2019.210915>

Evaluating outdoor thermal comfort using a mixed-method to improve the environmental quality of a university campus

Eslamirad, Nasim; Sepulveda Luque, Abel; De Luca, Francesco; Lylykangas, Kimmo Sakari Energies 2022 / art. 1577, 26 p. : ill <https://doi.org/10.3390/en15041577> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Experiments on Microclimatically adapt a courtyard to climate change

Naboni, Emanuele; Siani, Rossella; Turrini, Marcello; Touloupaki, Eleftheria; Gherri, Barbara; De Luca, Francesco lop Conference

Series: Earth and Environmental Science 2023 / art. 012032 <https://doi.org/10.1088/1755-1315/1196/1/012032> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Facade-floor-cluster methodology for determining optimal building clusters for solar access and floor plan layout in urban environments

De Luca, Francesco; Nejur, Andrei; Dogan, Timur eCAADe 2018 : Computing for a better tomorrow : proceedings of the 36th International Conference on Education and Research in Computer Aided Architectural Design in Europe : 19th-21st September 2018, Łódź, Poland, Faculty of Civil Engineering, Architecture and Environmental Engineering, Lodz University of Technology ; Vol. 2 2018 / p. 585-594 <https://doi.org/10.52842/conf.ecaade.2018.2.585> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

From envelope to layout : buildings massing and layout generation for solar access in urban environments

De Luca, Francesco eCAADe 2017 : ShoCK! : Sharing of Computable Knowledge : proceedings of the 35th International Conference on Education and Research in Computer Aided Architectural Design in Europe : 20th-22nd September 2017, Rome, Italy. Volume 2 2017 / p. 431-440 : ill <https://doi.org/10.52842/conf.ecaade.2017.2.431> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

From near real-time urban data to an explainable city-scale model to help reduce the Urban Heat Island (UHI) effect

Eslamirad, Nasim; De Luca, Francesco; Ben Yahia, Sadok; Lylykangas, Kimmo Sakari Journal of Physics: Conference Series 2023 / art. 092012, p. 1-6 : ill <https://doi.org/10.1088/1742-6596/2600/9/092012> [Conference proceedings at Scopus](#) [Article at Scopus](#)

From repetition to diversity: A workflow for energy-driven optimization of heterogeneous urban blocks in hot climates

Natanian, Jonathan; **De Luca, Francesco;** Naboni, Emanuele Will Cities Survive? PLEA STGO 2022 : Book of proceedings : online sessions 2022 / p. 842-847 : ill <https://plea2022.org/wp-content/uploads/2023/03/PROCEEDING-ONLINE-FINAL-MARZO.pdf>

Geoprocess of geospatial urban data in Tallinn, Estonia

Eslamirad, Nasim; De Luca, Francesco; Lylykangas, Kimmo Sakari; Ben Yahia, Sadok Data in brief 2023 / art. 109172, 13 p. : ill <https://doi.org/10.1016/j.dib.2023.109172> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Horizontal or vertical? Windows' layout selection for shading devices optimization

De Luca, Francesco; Voll, Hendrik; Thalfeldt, Martin Management of environmental quality : an international journal 2016 / p. 623-633 : ill <https://doi.org/10.1108/MEQ-05-2015-0102> [Journal metrics at Scopus](#) [Article at Scopus](#)

An integrated approach to subtractive solar envelopes based on attribute information from point cloud data

Alkadri, Miktha Farid; **De Luca, Francesco;** Turrin, Michel; Sariyildiz, Sevil Renewable and sustainable energy reviews 2020 / art. 109742, 19 p. : ill <https://doi.org/10.1016/j.rser.2020.109742> <http://resolver.tudelft.nl/uuid:be100809-acfd-4489-8e26-7a35731d514b> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Integrated architectural and environmental performance - driven form-finding. A teaching case study in Montreal

Szentesi-Nejur, Szende; **De Luca, Francesco;** Nejur, Andrei Proceedings of the 39th eCAADe Conference - Towards a new, configurable architecture : University of Novi Sad, Novi Sad, Serbia, 8-10 September 2021. Vol. 2 2021 / p. 105-114 : ill <https://doi.org/10.52842/conf.ecaade.2021.2.105> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

An integrated computational method for calculating dynamic thermal bridges of building facades in tropical countries

Cahyadi Agung, Muhammad Rafif; Alkadri, Miktha Farid; **De Luca, Francesco** Frontiers of architectural research 2024 / p. 201-218 : ill <https://doi.org/10.1016/j.foar.2023.11.003>

Learning performance-driven design. Students approach integrating urban form studies and building performance analysis

De Luca, Francesco Proceedings of Building Simulation 2019 : 16th IBPSA International Conference and Exhibition, 2-4 Sept., Rome 2020 / p. 1609-1616 : ill <https://doi.org/10.26868/25222708.2019.210579>

Lusikast linnani

De Luca, Francesco Sirp 2015 / lk. 26 : fot <https://sirp.ee/s1-artiklid/arhitektuur/lusikast-linnani/>

Machine learning approach versus prediction formulas to design healthy dwellings in a cold climate

Sepulveda Luque, Abel; Eslamirad, Nasim; De Luca, Francesco eCAADe 2023 : Digital Design Reconsidered : Proceedings of the 41st Conference on Education and Research in Computer Aided Architectural Design in Europe ; vol. 2 Proceedings of the International Conference on Education and Research in Computer Aided Architectural Design in Europe 2023 / p. 359-368 <https://doi.org/10.52842/conf.ecaade.2023.2.359> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Machine learning-based optimization design workflow based on obstruction angles for building facades

Sepulveda Luque, Abel; Eslamirad, Nasim; Seyed Salehi, Seyed Shahabaldin; Thalfeldt, Martin; De Luca, Francesco Regenerating the City Performance-driven and Simulation-based Computational Design for Sustainable Cities and Communities : proceedings of the 9th Regional International Symposium on Education and Research in Computer Aided Architectural Design in Europe, Tallinn University of Technology, 15-16 June 2023 2023 / p. 15-24 <https://digikogu.taltech.ee/et/Item/c29fc911-ec34-45da-afe6-bc1e8515e15d>

Making use of point cloud for generating subtractive solar envelopes

Alkadri, Miktha Farid; **De Luca, Francesco**; Turrin, Michel; Sariyildiz, Sevil eCAADe SIGraDi 2019 - Architecture in the Age of the 4th Industrial Revolution. Vol. 1 2019 / p. 633-640 : ill http://papers.cumincad.org/data/works/att/ecaadesigradi2019_061.pdf
https://doi.org/10.5151/proceedings-ecaadesigradi2019_061 Conference proceedings at Scopus Article at Scopus Article at WOS

Methodology for determining fenestration ranges for daylight and energy efficiency in Estonia

De Luca, Francesco; Dogan, Timur; **Kurnitski, Jarek** 2018 Proceedings of the symposium on simulation for architecture and urban design 2018 / p. 63–70 : ill <http://www.simaud.org/proceedings/>

Methodology for improving wind comfort in a cold region through modular urban elements

Eslamirad, Nasim; **De Luca, Francesco**; Sepulveda Luque, Abel; **Lylykangas, Kimmo Sakari** Regenerating the city : performance-driven and simulation-based computational design for sustainable cities and communities 2023 / p. 5-14
<https://digikogu.taltech.ee/et/Item/c29fc911-ec34-45da-afe6-bc1e8515e15d>

Multi-objective optimization for daylight retrofit

De Luca, Francesco; Wortmann, Thomas eCAADe 2020 : Anthropologic – Architecture and Fabrication in the cognitive age : Proceedings of the 38th eCAADe Conference : Education and research in Computer Aided Architectural Design in Europe, Berlin, Germany, 16-17 September 2020 2020 / p. 57-66 : ill http://ecaade.org/downloads/eCAADe2020_volume1-print.pdf
http://papers.cumincad.org/cgi-bin/works/paper/ecaade2020_272 Conference proceeding at Scopus Article at Scopus Article at WOS

A multi-objective optimization workflow based on solar access and solar radiation for the design of building envelopes in cold climates

Sepulveda Luque, Abel; **De Luca, Francesco** 2020 Proceedings of the Symposium on Simulation for Architecture and Urban Design 2020 / p. 131–138 : ill http://www.simaud.org/proceedings/download.php?f=SimAUD2020_Proceedings_LowRes.pdf

Multi-performance method for urban densification

Sepulveda Luque, Abel; **Eslamirad, Nasim**; **De Luca, Francesco** Proceedings of Building Simulation 2023 : 18th Conference of IBPSA 2023 / p. 1169-1176 https://publications.ibpsa.org/conference/paper/?id=bs2023_1307

Multi-performance optimization of static shading devices for glare, daylight, view and energy consideration

De Luca, Francesco; **Sepulveda Luque, Abel**; **Varjas, Toivo** Building and environment 2022 / art. 109110
<https://doi.org/10.1016/j.buildenv.2022.109110> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

A novel multi-criteria method for building massing based on energy performance and solar access : the mixed solar envelope (MSE) method

Sepulveda Luque, Abel; **De Luca, Francesco** Co-creating the future: inclusion in and through design ; Vol. 1 2022 / p. 649-658 : ill <https://doi.org/10.52842/conf.ecaade.2022.1.649> <https://www.researchgate.net/publication/363503843> Conference Proceedings at Scopus Article at Scopus Article at WOS

A novel multi-criteria workflow based on reverse solar envelopes for the design of residential clusters

Sepulveda Luque, Abel; **De Luca, Francesco** Proceedings of the 2022 Annual Modeling and Simulation Conference, ANNSIM 2022 2022 / p. 475-486 : ill <https://doi.org/10.23919/ANNSIM55834.2022.9859537>

A novel parametric method for assessing view towards green in the early Stages of urban design

Madelat, Payam; **De Luca, Francesco** eCAADe 2024 : Data-Driven Intelligence : Proceedings of the 42nd Conference on Education and Research in Computer Aided Architectural Design in Europe ; vol. 2 Proceedings of the International Conference on Education and Research in Computer Aided Architectural Design in Europe 2024 / p. 347-356
<https://doi.org/10.52842/conf.ecaade.2024.2.347>

A novel solar envelope method based on solar ordinances for urban planning

De Luca, Francesco; Dogan, Timur Building Simulation 2019 / p. 817 - 834 <https://doi.org/10.1007/s12273-019-0561-1> Journal metrics at Scopus Article at Scopus Journal metrics at WOS Article at WOS

A novel workflow for early design stages to ensure daylight and summer thermal comfort in buildings = Uudne töövoog projekteerimise algaasis, et tagada päevavalgus ja suvine soojusmugavus hoonetes

Sepulveda Luque, Abel 2022 <https://doi.org/10.23658/taltech.34/2022> <https://digikogu.taltech.ee/et/Item/9d383d7b-f702-490a-a054-bbdfb238e402> https://www.ester.ee/record=b5503220*est

Outdoor comfort analysis in a University Campus during the warm season and parametric design of mitigation strategies for Resilient Urban Environments

De Luca, Francesco Computer-Aided Architectural Design. Design Imperatives: The Future is Now. CAAD Futures 2021 2022 / p. 473-493 https://doi.org/10.1007/978-981-19-1280-1_29 Conference proceedings at Scopus Article at Scopus Article at WOS

Outdoor thermal comfort optimization in a cold climate to mitigate the level of urban heat island in an urban area

Eslamirad, Nasim; **Sepulveda Luque, Abel**; **De Luca, Francesco**; **Lylykangas, Kimmo Sakari**; **Ben Yahia, Sadok** Energies 2023 / art. 4546, 28 p. : ill <https://doi.org/10.3390/en16124546> Journal metrics at Scopus Article at Scopus Journal metrics at WOS

Overheating and daylighting evaluation for free-running classroom designs

Kiil, Martin; Simson, Raimo; De Luca, Francesco; Thalfeldt, Martin; Kurnitski, Jarek IOP conference series : earth and environmental science 2019 / art. 012059, 7 p. : ill <https://doi.org/10.1088/1755-1315/352/1/012059> [Conference proceedings at Scopus](#)
[Article at Scopus](#)

Quick protocol for integrating the attribute information of unstructured point cloud data into a solar envelope simulation

Alkadri, Miktha Farid; De Luca, Francesco; Turrin, Michela; Agung, Muhammad Rafif Cahyadi Journal of green building 2023 / p. 3-15 : ill <https://doi.org/10.3992/jgb.18.4.3> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Regenerating the city. Performance-driven and simulation-based computational design for sustainable cities and communities : proceedings of the 9th Regional International Symposium on Education and Research in Computer Aided Architectural Design in Europe, Tallinn University of Technology, 15-16 June, 2023

2023 <https://digikogu.taltech.ee/en/Item/c29fc911-ec34-45da-afe6-bc1e8515e15d>

Relationship analysis and optimisation of space layout to improve the energy performance of office buildings

Du, Tiantian; Turrin, Michela; Jansen, Sabine; Dobbelsteen, Andy van den; De Luca, Francesco Energies 2022 / art. 1268 <https://doi.org/10.3390/en15041268> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Reverse solar envelope method. A new building form-finding method that can take regulatory frameworks into account

De Luca, Francesco; Dogan, Timur; Sepulveda Luque, Abel Automation in construction 2021 / art. 103518, 18 p. : ill <https://doi.org/10.1016/j.autcon.2020.103518> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Risen from the dead : from slumming to gentrification

Hiob, Mart; Nutt, Nele; Nurme, Sulev; De Luca, Francesco Transylvanian review of administrative sciences 2012 / p. 92-105 : ill https://www.researchgate.net/publication/283139084_Risen_from_the_Dead_From_Slumming_to_Gentrification

The role of building morphology on pedestrian level comfort in Northern climate

Eslamirad, Nasim; De Luca, Francesco; Lylykangas, Kimmo Sakari Journal of physics : conference series 2021 / art. 012053, p. 1-6 : ill <https://doi.org/10.1088/1742-6596/2042/1/012053> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Shadow optimisation of low-impact temporary architecture to improve climatic comfort in urban spaces

Siani, Rossella; De Luca, Francesco eCAADe 2024 : Data-Driven Intelligence : Proceedings of the 42nd Conference on Education and Research in Computer Aided Architectural Design in Europe ; vol. 2 Proceedings of the International Conference on Education and Research in Computer Aided Architectural Design in Europe 2024 / p. 577-586 https://papers.cumincad.org/data/works/att/ecaade2024_81.pdf <https://doi.org/10.52842/conf.ecaade.2024.2.577>

Simulation based daylight uniformity optimizations for elementary school projects in Quebec province

Szentesi-Nejur, Szende; De Luca, Francesco; Flamand, Krystel Co-creating the Future : Inclusion in and through Design - Proceedings of the 40th Conference on Education and Research in Computer Aided Architectural Design in Europe (eCAADe 2022), Ghent, 13-16 September 2022 ; Vol. 1 2022 / p. 639-647 <https://doi.org/10.52842/conf.ecaade.2022.1.639> [Conference Proceedings at Scopus](#) [Article at Scopus](#)

The Solar Block Generator : an additive parametric method for solar driven urban block design

Natanian, Jonathan; De Luca, Francesco; Wortmann, Thomas; Capeluto, Guedi Journal of Physics: Conference Series 2021 / art. 012049 <https://doi.org/10.1088/1742-6596/2042/1/012049> [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Solar collection multi-isosurface method : computational design advanced method for the prediction of direct solar access in urban environments

De Luca, Francesco; Voll, Hendrik Computer-Aided Architectural Design : Future Trajectories : 17th International Conference, CAAD Futures 2017, Istanbul, Turkey, July 12-14, 2017 : selected papers 2017 / p. 170-187 : ill https://doi.org/10.1007/978-981-10-5197-5_10 [Conference proceedings at Scopus](#) [Article at Scopus](#)

Solar collection multi-isosurface method : computational design advanced method for the prediction of direct solar access in urban environments

De Luca, Francesco; Voll, Hendrik Future Trajectories of Computation in Design : 17th International Conference, CAAD Futures 2017, Istanbul, July 12-14, 2017 : proceedings 2017 / p. 225 http://caadfutures2017.itu.edu.tr/wp-content/uploads/2017/09/CAADFutures2017_Proceedings-updated-20092017.pdf

Solar envelope optimization method for complex urban environments

De Luca, Francesco CAADence in architecture : back to command : proceedings of the International Conference on Computer Aided Architectural Design : 16-17 June 2016, Budapest, Hungary, Faculty of Architecture, Budapest University of Technology and Economics. 2nd ed 2016 / p. 195-201 : ill <http://dx.doi.org/10.3311/CAADence.1657>

Solar form finding : subtractive solar envelope and integrated solar collection computational method for high-rise

buildings in urban environments

De Luca, Francesco Acadia 2017 : Disciplines & Disruption : proceedings of the 37th Annual Conference of the Association for Computer Aided Design in Architecture 2017 / p. 212-221 : ill

Solar insolation requirement the reason for overheating in nearly zero energy apartment buildings

Voll, Hendrik; Tamm, Kristel; De Luca, Francesco Advanced Building Skins : 12th Conference on Advanced Building Skins, 2-3 October 2017, Bern, Switzerland 2017 / p. 785-787 : ill

Solar radiation-based method for early design stages to balance daylight and thermal comfort in office buildings

Sepulveda Luque, Abel; Seyed Salehi, Seyed Shahabaldin; De Luca, Francesco; Thalfeldt, Martin Frontiers of architectural research 2023 / p. 1030 - 1046 <https://doi.org/10.1016/j.foar.2023.07.001> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Static Shading Optimization for Glare Control and Daylight

De Luca, Francesco; Sepulveda Luque, Abel; Varjas, Toivo Proceedings of the 39th eCAADe Conference - Towards a new, configurable architecture : University of Novi Sad, Novi Sad, Serbia, 8-10 September 2021. Vol. 2 2021 / p. 419-428 <https://doi.org/10.52842/conf.ecaade.2021.2.419> https://papers.cumincad.org/cgi-bin/works/paper/ecaade2021_230 [Conference proceedings at Scopus](#) [Article at Scopus](#)

Sun and wind : integrated environmental performance analysis for building and pedestrian comfort

De Luca, Francesco SimAUD 2019 : 2019 Proceedings of the Symposium on Simulation for Architecture & Urban Design : 10th Anniversary Edition 2019 / p. 3-10 : ill http://www.simaud.org/proceedings/download.php?f=SimAUD2019_Proceedings_HiRes.pdf

Tall buildings cluster form rationalization in a Nordic climate by factoring in indoor-outdoor comfort and energy

De Luca, Francesco; Naboni, Emanuele; Lobaccaro, Gabriele Energy and buildings 2021 / art. 110831, 16 p. : ill <https://doi.org/10.1016/j.enbuild.2021.110831> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Ten questions concerning environmental architectural design exploration

De Luca, Francesco; Natanian, Jonathan; Wortmann, Thomas Building and environment 2024 / art. 111697 <https://doi.org/10.1016/j.buildenv.2024.111697>

Ten questions on tools and methods for positive energy districts

Natanian, Jonathan; Guarino, Francesco; Manapragada, Naga; Magyari, Abel; Naboni, Emanuele; De Luca, Francesco; Cellura, Salvatore; Brunetti, Alberto; Reith, Andras Building and environment 2024 / art. 111429 <https://doi.org/10.1016/j.buildenv.2024.111429>

Tropical responsive envelopes for urban heat island mitigation in tropical countries: A proposed workflow for integrated environmental digital simulation

Irsyad, Naufal Andi; Alkadri, Miktha Farid; De Luca, Francesco; Arif, Muhammad; Heinzelmann, Florian eCAADe 2023 : Digital Design Reconsidered : Proceedings of the 41st Conference on Education and Research in Computer Aided Architectural Design in Europe ; vol. 2 Proceedings of the International Conference on Education and Research in Computer Aided Architectural Design in Europe 2023 / p. 249-258 <https://doi.org/10.52842/conf.ecaade.2023.2.249> [Conference proceedings at Scopus](#) [Article at Scopus](#)

Understanding computational methods for solar envelopes based on design parameters, tools, and case studies : a review

Alkadri, Miktha Farid; De Luca, Francesco; Turrin, Michel; Sariyildiz, Sevil Energies 2020 / art. 3302, 25 p. : ill <https://doi.org/10.3390/en13133302> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Urban planning principles of nearly zero-energy residential buildings in Estonia

Voll, Hendrik; Thalfeldt, Martin; De Luca, Francesco; Kurnitski, Jarek; Olesk, Timo Management of environmental quality - an international journal 2016 / p. 634-648 : ill <https://doi.org/10.1108/meq-05-2015-0101> [Journal metrics at Scopus](#) [Article at Scopus](#)

Urban Shaderade. Building space analysis method for energy and sunlight consideration in urban environments

De Luca, Francesco; Sepulveda Luque, Abel Computer-Aided Architectural Design. INTERCONNECTIONS: Co-computing Beyond Boundaries. CAAD Futures 2023 : 20th International Conference, Delft, The Netherlands, July 5-7, 2023 : Selected Papers 2023 / p. 317-332 https://doi.org/10.1007/978-3-031-37189-9_21 [Conference proceedings at Scopus](#) [Article at Scopus](#)

Wind comfort analysis and design of small scale elements for improving urban space livability - a case study in Tallinn, Estonia

Kazak, Jelena; De Luca, Francesco; Partanen, Jenni Vilhelmiina Co-creating the Future : Inclusion in and through Design - Proceedings of the 40th Conference on Education and Research in Computer Aided Architectural Design in Europe (eCAADe 2022), Ghent, 13-16 September 2022 , vol. 2 2022 <https://doi.org/10.52842/conf.ecaade.2022.2.247> [Conference Proceedings at Scopus](#) [Article at Scopus](#)