



## Sara Garcia

### Publications List

---

#### Journal Articles

- Garcia, S & Leitão, A, 2022, 'Navigating Design Spaces: Finding Designs, Design Collections, and Design Subspaces', *International Journal of Architectural Computing*, vol. 0, no. 0, pp. 1–20.
- Garcia, S & Leitão, AM, 2018, 'Shape Grammars as Design Tools: An Implementation of a Multipurpose Chair Grammar', *Artificial Intelligence for Engineering Design, Analysis and Manufacturing*, vol. 32, no. 2, pp. 240–255.

---

#### Book Chapters

- Leitão, A & Garcia, S, 2022. 'Reverse Algorithmic Design', in: *Design Computing and Cognition '20*. Springer, pp. 317–328.
- Garcia, S, 2017, 'Classifications of Shape Grammars', in *Design Computing and Cognition '16*, Springer, pp. 243–262.
- Garcia, S & Romão, L, 2015, 'A Design Tool for Generic Multipurpose Chair Design', in G Celani, D Sperling, & J Franco (eds), *Computer-Aided Architectural Design: The Next City - New Technologies and the Future of the Built Environment: 16th International Conference, CAAD Futures 2015, São Paulo, Brazil, July 8-10, 2015. Selected Papers*, Springer, Berlin, Heidelberg, pp. 600–619.
- Correia, JV, Romão, L; Rosado Ganhão, S; Couceiro da Costa, M; Santos Guerreiro, A; Henriques, D; Garcia, S; Albuquerque, C; Carmo, MB; Cláudio, AP; Chambel, T; Burgess, R; Marques, C; 2013, 'A New Extended Perspective System for Architectural Drawings', in *Global Design and Local Materialization: 15th International Conference, CAAD Futures 2013, Shanghai, China, July 3-5, 2013*, Springer, Berlin, Heidelberg, pp. 63–75.

---

#### Conference Proceedings

- Caetano, I; Garcia, S; Pereira, I; Leitão, A, 2020. 'Creativity Inspired by Analysis: An algorithmic design system for designing structurally feasible façades', in: *RE: Anthropocene: Proceedings of the 25th Annual Conference of the Association for Computer-Aided Architectural Design Research in Asia (CAADRIA) Conference*. pp. 599–608.
- Garcia, S & Romão, L, 2016, 'Style and Type in a Generic Shape Grammar: The Case of Multipurpose Chairs', in *Complexity & Simplicity: Proceedings of the 34th eCAADe Conference*, University of Oulu, Oulu, Finland, pp. 339–348.
- Garcia, S & Barros, M, 2015, 'A Grammar-Based System for Chair Design: From Generic to Specific Shape Grammars', in *Real Time - Proceedings of the 33rd eCAADe Conference*, Vienna University of Technology, pp. 427–436.
- Burgess, R; Chambel, T; Cláudio, AP; Carmo, MB; Albuquerque, C; Correia, JV; Romão, L; Rosado Ganhão, S; Couceiro da Costa, M; Santos Guerreiro, A; Garcia, S, 2014, 'Interactive Visualizer for the Extended Perspective System as Support for Architectural Design', in *GRAPP 2014 - International Conference on Computer Graphics Theory and Applications*, Lisboa, pp. 453–463.
- Burgess, R; Cláudio, AP; Chambel, T; Carmo, MB; Albuquerque, C; Marques, C; Correia, JV; Romão, L; Rosado Ganhão, S; Couceiro da Costa, M; Santos Guerreiro, A; Garcia, S; Henriques, D, 2013, 'Visualizador Interactivo de Desenhos Arquitectónicos em Sistema de Perspectiva Expandido', in: *Interação 2013*, Vila Real, Portugal, pp. 144–151.
- Garcia, S & Romão, L, 2011, 'Contributos para o estudo da forma: desenvolvimento de um modelo computacional aplicado à cadeira', in *Designa2011: Proceedings - A Esperança Projectual*, Covilhã, Portugal, pp. 219–226.

---

#### Theses

- Garcia, S, 2018, 'A Computational Study on Form: a Grammar-based Tool for Multipurpose Chair Design', PhD Thesis, Faculdade de Arquitetura da Universidade de Lisboa.
- Garcia, S, 2010, 'As Tecnologias CAD no Design de Produto: da Ideia à sua Materialização', MSc Thesis, Faculdade de Arquitetura da Universidade Técnica de Lisboa.