

CALL FOR PAPERS

AI EDAM Special Issue, November 2017, Vol. 31, No. 4 ADVANCES IN IMPLEMENTED SHAPE GRAMMARS: SOLUTIONS AND APPLICATIONS

Guest Editors: Sara Eloy, Pieter Pauwels, & Athanassios Economou

This Special Issue frames the topic of computer implementations of shape grammars with both a theoretical and an applied focus. The starting point of the Special Issue is the current state of the art regarding computer implementations of shape grammars and a discussion about how those systems can evolve in the coming years so that they can be used in real life design scenarios. We welcome contributions that target these topics on a theoretical level and/or a practical level, with state-of-the-art reviews and practical demonstrator applications. We expect contributions to document existing software implementations of shape grammars (shape grammar interpreters), including their newest features and technological advances. We encourage an in-depth technical discussion of these software implementations, thus advancing beyond the current state of the art by giving a detailed impression of the strengths and weaknesses of the available systems. We encourage authors to consider the technological advances of the documented systems in close relation with other technological advances in design and decision support tools, including parametric design tools, generative design tools, genetic algorithms, optimization algorithms and approaches, procedural modeling, and semantics-based applications.

In addition to the focus on pure computer implementations of shape grammars, this Special Issue also calls for contributions regarding real design scenario applications. Several recent computer implementations use parametric design tools to generate design alternatives. However, most of these implementations realize only a part of the potentials that were originally attributed to shape grammars, thereby leaving some important features such as emergence, interactivity, and ambiguity behind in favor of other features. Considering this myriad of implementation approaches, computer implemented shape grammar interpreters might be usable for diverse application scenarios, ranging from shape grammars for personalized customization for mass housing to flexible, on-the-spot design grammars that are able to evolve with the design process of the designer. How can shape grammars find their way into the design process? What more can we do in shape grammars' implementation to make them useful to a real life design scenario? Is the research driven by an academic challenge or are the implemented grammars also aiming at a future design market?

Authors should submit their papers through the ScholarOne system online at <http://mc.manuscriptcentral.com/aie>. All submissions will be anonymously reviewed by at least three reviewers. The selection for publication will be made on the basis of these reviews. High quality papers not selected for this Special Issue may be considered for standard publication in *AI EDAM*.

Information about the format and style required for *AI EDAM* papers can be found at <http://aiedam.usc.edu/index.php/Authors/ManuscriptPrep>

Note that all inquiries for Special Issues go to the Guest Editors, **not** to the Editor in Chief.

Important Dates

Intent to submit (Abstract & Title):	As soon as possible
DCC shape grammar workshop:	June 25–26, 2016
Submission deadline for full papers:	October 15, 2016
Notification and reviews to authors:	January 25, 2017
Final revision due:	May 15, 2017

Guest Editors

Sara Eloy
ISCTE Lisbon University Institute
Av. Forças Armadas
Ed. ISCTE-IUL, Office D3.03
Lisbon 1649-026, Portugal
E-mail: sara.eloy@iscte-iul.pt

Pieter Pauwels
Department of Architecture and Urban Planning
Ghent University
J. Plateaustraat 22
Ghent 9000, Belgium
E-mail: pipauwel.pauwels@ugent.be

Athanasios Economou
School of Architecture
Georgia Institute of Technology
245 4th Street NW
Atlanta, GA 30332-0155, USA
E-mail: thanos.economou@coa.gatech.edu