

# Handbook of the Mathematics of the Arts and Sciences

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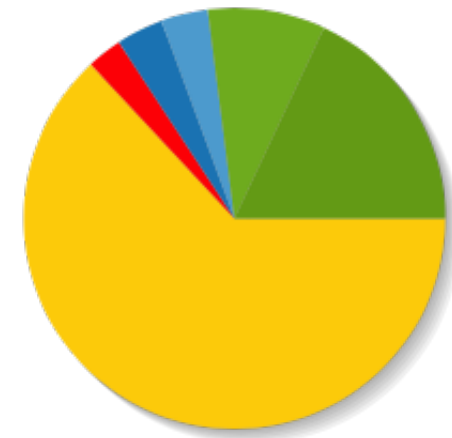
**Introduction**  
Section Editor: Professor Bharath Sriraman

On the mathematics of the arts and sciences (/container/contribute.jsf?id=121596) Sriraman, B.	2019-11-01 (submission)	Open for Submission
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**Mathematics and Architecture**  
Section Editor: Professor Michael J. Ostwald

Baroque Architecture (/container/contribute.jsf?id=121717) Duvernoy, S.	Published and Open for Update
Classical Greek and Roman Architecture: Examples and Typologies (/container/contribute.jsf?id=127021) Duvernoy, S.	Published and Open for Update

## Project overview



- Pending  
70 chapters, 63%
- Submission Overdue  
3 chapters, 2%
- In Review  
4 chapters, 3%
- Revision Requested  
4 chapters, 3%
- In Production  
10 chapters, 9%
- Published and Open for Update  
20 chapters, 18%

Classical Greek and Roman Architecture: Mathematical Theories and Concepts (/container/contribute.jsf?id=127022) Duvernoy, S.		Published and Open for Update
Egyptian Architecture and Mathematics (/container/contribute.jsf?id=125989) Rossi, C.		Published and Open for Update
Fractal Dimensions in Architecture: Measuring the Characteristic Complexity of Buildings (/container/contribute.jsf?id=121720) Ostwald, M. , Vaughan, J.		Published and Open for Update
Fractal Geometry in Architecture (/container/contribute.jsf?id=121719) Vaughan, J. , Ostwald, M.		Published and Open for Update
Gothic Architecture and Mathematics (/container/contribute.jsf?id=138108) Lluis i Ginovart, J. , López Piq...	2019-03-01 (submission)	Open for Submission

## Statistics

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### Unassigned Chapters

0 chapters, 0%

### Chapters In Process

18 chapters, 16%

### Published Chapters

20 chapters, 18%

<p>Isovists: Spatio-Visual Mathematics in Architecture (/container/contribute.jsf?id=121713) Ostwald, M. , Dawes, M.</p>	<p>Published and Open for Update</p>
<p>Labyrinth (/container/contribute.jsf?id=121712) Morrison, T.</p>	<p>Published and Open for Update</p>
<p>Parametric Design: Theoretical Development and Algorithmic Foundation for Design Generation in Architecture (/container/contribute.jsf?id=121716) Gu, N. , Yu, R., Behbahani, P.</p>	<p>Published and Open for Update</p>
<p>Renaissance Architecture (/container/contribute.jsf?id=121718) Duvernoy, S.</p>	<p>Published and Open for Update</p>
<p>Shape Grammars: A Key Generative Design Algorithm (/container/contribute.jsf?id=121715) Gu, N. , Behbahani, P.</p>	<p>Published and Open for Update</p>
<p>Space Syntax: Mathematics and the Social Logic of Architecture (/container/contribute.jsf?</p>	<p>Published and Open for Update</p>

id=121714) Dawes, M. , Ostwald, M.		
Stereotomy: Architecture and Mathematics (/container/contribute.jsf?id=138109) Fallacara, G., Gadaleta, R.	2019-03-01 (submission)	Open for Submission
Temple of Solomon (/container/contribute.jsf?id=121711) Morrison, T.		Published and Open for Update
Tessellation and Tiling in Architecture (/container/contribute.jsf?id=138110) Ostwald, M.	2018-12-01 (submission)	Open for Submission
Utopian Cities (/container/contribute.jsf?id=121710) Morrison, T.		Published and Open for Update
<b>Mathematics, Science and Dynamical Systems</b> Section Editors: Torsten Lindström, Professor Bharath Sriraman		
Anomaly detection in Nature (/container/contribute.jsf?id=141759) Sanz, V.	2020-04-01 (submission)	Open for Submission

Applications of ergodic theory and (measurable and symbolic) dynamical systems (/container/contribute.jsf?id=123244) Comez, D.	2019-03-01 (submission)	Open for Submission
Coevolution of Mathematics, Statistics, and Genetics (/container/contribute.jsf?id=123241) Yoo, Y.		Published and Open for Update
Complexity and Emergence: the Mathematical Theory, and its Application to Biology (/container/contribute.jsf?id=123249) Tager, T.	<b>2018-11-01</b> (submission)	Open for Submission
Damped dynamical systems for solving equations and optimization problems (/container/contribute.jsf?id=123245) Gulliksson, M.		In Production
Limit cycles in planar systems of ordinary differential equations (/container/contribute.jsf?id=123247) Lindström, T.	2020-12-01 (submission)	Open for Submission

<p>Mathematical Models Can Predict the Spread of an Invasive Species (/container/contribute.jsf?id=123435) Alford, J.</p>	<p>2018-11-23 (revision)</p>	<p>Revision Requested</p>
<p>Mathematics and Climate Change (/container/contribute.jsf?id=123436) Lohmann, G.</p>	<p>2019-03-01 (submission)</p>	<p>Open for Submission</p>
<p>Mathematics and recurrent population outbreaks (/container/contribute.jsf?id=123246) Lindström, T.</p>		<p>In Production</p>
<p>Moment closure methods in population dynamics. (/container/contribute.jsf?id=129920) Asta, A.</p>	<p>2019-11-01 (submission)</p>	<p>Open for Submission</p>
<p>Overview of Interdisciplinary mathematics and sciences in Schematic Ocean Current Maps in the Seas around Korea (/container/contribute.jsf?id=123250) Park, K., Park, J., Park, J., C...</p>		<p>In Production</p>

Recent Developments in Catastrophe Theory (/container/contribute.jsf?id=139767) Stewart, I.	2019-12-01 (submission)	Open for Submission
Topology in Biological Systems (/container/contribute.jsf?id=138290) Sizemore, A. , Bassett, D.	2019-11-15 (submission)	Open for Submission
Two way thermodynamics (/container/contribute.jsf?id=139766) Schulman, L.	2020-10-01 (submission)	Open for Submission
<b>Mathematics, Humanities and the Language Arts</b> Section Editors: Gizem Karaali, Professor Bharath Sriraman		
A massive mountain in Aleksis Kivi's play Kullervo: a sublime experience? (/container/contribute.jsf?id=123427) Kukkonen, T.	2018-11-23 (submission)	Open for Submission
Beauty is in the blind spot of the beholder (/container/contribute.jsf?id=139764) Aharoni, R.	2019-12-01 (submission)	Open for Submission
Elegance in Design:	2019-01-01	

Mathematical Scaffolding in the Stories of Ted Chiang (/container/contribute.jsf?id=123430) Sklar, J.	(submission)	Open for Submission
Looking Through the Glass (/container/contribute.jsf?id=123424) Crannell, A.	2018-11-30 (submission)	Open for Submission
Mathematical pattern poetry: from past to present (/container/contribute.jsf?id=139765) Glaz, S.	2019-12-01 (submission)	Open for Submission
Mathematics and language (/container/contribute.jsf?id=139373) Silver, D.	2019-11-01 (submission)	Open for Submission
Mathematics and Poetry (/container/contribute.jsf?id=123428) Karaali, G.	2019-06-01 (submission)	Open for Submission
Mathematics and Theater: Beckett (/container/contribute.jsf?id=123425) Abbott, S.	<b>2018-11-01</b> (submission)	Open for Submission
Poems Structured by	2019-12-01	



Mathematics (/container/contribute.jsf? id=140775) May, D.	(submission)	Open for Submission
Running in shackles: the information-theoretic paradox of poetry (/container/contribute.jsf? id=123440) Manin, D.		In Production
The Poetry of Mathematics and the Mathematics of Poetry (/container/contribute.jsf? id=139929) Caraman, S. , Caraman, L.	2019-09-01 (submission)	Open for Submission
<b>Mathematics, Art and Aesthetics</b> Section Editors: Professor Bharath Sriraman, Professor Kyeong-Hwa Lee		
A Hidden Order: Revealing the Bonds Between Music and Geometric Art – Part One (/container/contribute.jsf? id=123038) Mara, S. , Westwood, L.		Published and Open for Update
A Hidden Order: Revealing the Bonds Between Music and Geometric Art – Part Two (/container/contribute.jsf? id=123039)		Published and Open for Update

Westwood, L., Mara, S.		
A Survey of Cellular Automata in Fiber Arts (/container/contribute.jsf?id=123439) Holden, J. , Holden, L.		In Review
Aesthetics of Knots in Modern Art and Architecture (/container/contribute.jsf?id=123047) Kozlov, D.	2018-12-15 (submission)	Open for Submission
Almost all surfaces are made out of hexagons (/container/contribute.jsf?id=139930) Baik, H.	2019-01-31 (submission)	Open for Submission
Anamorphosis (/container/contribute.jsf?id=139759) Araújo, A.	2019-11-01 (submission)	Open for Submission
Anamorphosis: Between Perspective and Catopritics (/container/contribute.jsf?id=123403) De Rosa, A. , Bortot, A.		In Review
Art and Science of Rope (/container/contribute.jsf?id=123035)		Published and Open for Update

Åström, A. , Åström, C.		
Artistic surprises from integers (/container/contribute.jsf?id=139370) Estrada, E.	2019-11-01 (submission)	Open for Submission
Comparative Temple Geometries (/container/contribute.jsf?id=123043) Mcgonigal, K.	2019-02-01 (submission)	Open for Submission
Connecting the Mathematics of Polyhedra and Tilings with Art (/container/contribute.jsf?id=137918) Malkevitch, J.	2019-06-01 (submission)	Open for Submission
Eight-Pointed Stars and Pythagorean Triangles (/container/contribute.jsf?id=123046) Kozlov, D.	2018-12-15 (submission)	Open for Submission
Geometric and Aesthetic Concepts based on Pentagonal Structures (/container/contribute.jsf?id=123041) Leopold, C.	2018-12-07 (revision)	Revision Requested
Geometries of Light and Shadows from Piero della	2018-12-08 (revision)	Revision Requested

Francesca to James Turrell (/container/contribute.jsf?id=122974) De Rosa, A. , Bergamo, F.		
Homeomorphisms Between the Circular Disc and the Square (/container/contribute.jsf?id=123048) Fong, C.		In Production
Korean Traditional Patterns: Frieze and Wallpaper (/container/contribute.jsf?id=123037) Shin, H. , Sheen, S., Kwon, H....		Published and Open for Update
Math and Origami (/container/contribute.jsf?id=122968) Budinski, N.		In Production
Mathematical Design for Knotted Textiles (/container/contribute.jsf?id=123404) Nimkulrat, N. , Nurmi, T.		In Production
Mathematics and Existence (/container/contribute.jsf?id=123405) Derobert, L. , Anderson, N.	<b>2018-11-01</b> (submission)	Open for Submission

Origami-inspired light art and mathematics (/container/contribute.jsf?id=139760) Wu, J.	2019-09-01 (submission)	Open for Submission
Projections of Knots and Links (/container/contribute.jsf?id=123036) Åström, A. , Åström, C.		Published and Open for Update
Sacred Geometry (/container/contribute.jsf?id=123045) Karaali, G.	2019-06-01 (submission)	Open for Submission
SORMEDAN: Pentagonal Geometric 2-level patterns in Persian tradition, solution to two unresolved challenges. (/container/contribute.jsf?id=126326) Castera, J.		In Review
Spherical perspective (/container/contribute.jsf?id=139758) Araújo, A.	2019-11-01 (submission)	Open for Submission
The Beauty of Complex Functions (/container/contribute.jsf?id=138291) Gorkin, P. , Daepf, U., Semml...	2019-11-01 (submission)	Open for Submission

The Relation Between Multi-layered Surfaces, Polyhedra and Weaving (/container/contribute.jsf?id=123044) Roelofs, R.	2019-04-07 (submission)	Open for Submission
<b>Mathematics, History and Philosophy</b> Section Editor: Professor Bharath Sriraman		
Ancient Methods of Measuring Astronomical Sizes (/container/contribute.jsf?id=131394) Clinch, A. , Sriraman, B.	2019-11-01 (submission)	Open for Submission
Folding and Geometry from the 15th century (/container/contribute.jsf?id=138295) Friedman, M.	2019-11-01 (submission)	Open for Submission
Islamic design and its relation to Mathematics (/container/contribute.jsf?id=138294) Wade, D., Wichmann, B.	2019-11-01 (submission)	Open for Submission
Leonhard Euler between mathematics and natural philosophy: Anleitung zur Naturlehre (/container/contribute.jsf?	2019-11-01 (submission)	Open for Submission

id=139973) Capecchi, D.		
Mathematical explanations and mathematical applications (/container/contribute.jsf?id=123243) Pantsar, M.		In Production
Nyaya Methodology and Western Mathematical Logic: Origins and Implications (/container/contribute.jsf?id=131342) Schmidt, M., Sriraman, B.		In Production
Reception and Contestation: Mathematics and Esoteric Spirituality, 1875-1915 (/container/contribute.jsf?id=139381) Valente, K.	2019-09-30 (submission)	Open for Submission
Space and Time in the Foundations of Mathematics, or some challenges in the interactions with other sciences (/container/contribute.jsf?id=141647) Longo, G.	2019-01-01 (submission)	Open for Submission
The Cross-cultural Aspects of the Wheat and Chessboard	2019-03-01 (submission)	Open for Submission

Problem (/container/contribute.jsf? id=137500) Bardi, A.		
The mathematical Baroqueian folds: between metaphor and the mathematics to come (/container/contribute.jsf? id=138296) Friedman, M.	2019-11-01 (submission)	Open for Submission
Writing the history of mathematics - interpretations of the mathematics of the past and its relation to the mathematics of today (/container/contribute.jsf? id=129583) Bråting, K. , Pejlare, J.	2019-06-01 (submission)	Open for Submission
<b>Mathematics in Society</b> Section Editor: Professor Bharath Sriraman		
A Computational Music Theory of Everything - Dream or Project? (/container/contribute.jsf? id=138293) Mazzola, G.	2019-06-01 (submission)	Open for Submission
Actuarial (Mathematical) Modeling of Mortality and Survival Curves	2019-03-01 (submission)	Open for Submission



<p>(/container/contribute.jsf?id=133151)          Brockett, P. , Zhang, Y.</p>		
<p>Applications of the Gini index beyond economics and statistics          (/container/contribute.jsf?id=139761)          Zizler, P. , La Haye, R.</p>	<p>2019-11-01          (submission)</p>	<p>Open for Submission</p>
<p>Aspects of statistics and the law          (/container/contribute.jsf?id=139371)          Gray, M.</p>	<p>2019-11-01          (submission)</p>	<p>Open for Submission</p>
<p>Breaking the ice: Figure skating          (/container/contribute.jsf?id=123434)          Cheng, D.</p>	<p>2019-02-01          (revision)</p>	<p>Revision Requested</p>
<p>Gilles Deleuze's The Fold: Calculus and Curvilinear Design          (/container/contribute.jsf?id=139762)          Hubregtse, M.</p>	<p>2019-11-01          (submission)</p>	<p>Open for Submission</p>
<p>How the Mind Computes our Personal Identity          (/container/contribute.jsf?id=138292)          Neuman, Y.</p>	<p>2019-06-01          (submission)</p>	<p>Open for Submission</p>

Mathematical Games (/container/contribute.jsf? id=140808) Nowakowski, R.	2019-04-01 (submission)	Open for Submission
Mathematics and Economics/ Social Choice Theory (/container/contribute.jsf? id=123431) Salles, M.	2019-05-01 (submission)	Open for Submission
Mathematics and Wine (/container/contribute.jsf? id=131556) Cadeddu, L. , De Marchi, S., ...		In Production
Music, Dance, and Differential Equations (/container/contribute.jsf? id=140807) Koss, L.	2019-12-01 (submission)	Open for Submission
Probabilistic Thinking from Elementary Grades to Graduate School (/container/contribute.jsf? id=123432) Beam, J.	2019-01-01 (submission)	Open for Submission
Risk and decision making - Modelling and statistics in medicine (/container/contribute.jsf?	2018-12-03 (submission)	Open for Submission

id=127199) Borovcnik, M.		
Scaling Laws (/container/contribute.jsf? id=132392) Shour, R.		In Review
Social Algorithms and Optimization (/container/contribute.jsf? id=139763) Yang, X.	2019-06-01 (submission)	Open for Submission
Sporthematics: Approaches to Learning (/container/contribute.jsf? id=123433) Berezovski, T. , Berezovski, A.	2019-12-01 (submission)	Open for Submission
Topology of Cities (/container/contribute.jsf? id=125376) Brelsford, C. , Martin, T.	2018-12-01 (submission)	Open for Submission
Towards a theoretical model of rhythm (/container/contribute.jsf? id=139372) Waadeland, C.	2019-11-01 (submission)	Open for Submission
<b>Mathematical Influences and New Directions</b> Section Editor: Professor Ken Valente		

Cognition, interdisciplinarity, and equity (/container/contribute.jsf?id=136445) Adiredja, A.	2019-05-01 (submission)	Open for Submission
Ethnomathematics (/container/contribute.jsf?id=136447) Furuto, L.	2019-05-01 (submission)	Open for Submission
Ethnomodelling as the Translation of Diverse Cultural Mathematical Practices (/container/contribute.jsf?id=136439) Rosa, M. , Orey, D.	2019-05-01 (submission)	Open for Submission
Intersectional mathematics (/container/contribute.jsf?id=136448) Leyva, L.	2019-05-01 (submission)	Open for Submission
Mathematical influences in film and / or television (/container/contribute.jsf?id=136450) Sklar, J. , Nordstom, J.	2019-05-01 (submission)	Open for Submission
Mathematical influences on the theatre / theatrical productions (/container/contribute.jsf?id=136444)	2019-05-01 (submission)	Open for Submission

Abbott, S.		
Mathematics and feminist theory (/container/contribute.jsf?id=136449) McGuire, L.	2019-05-01 (submission)	Open for Submission
Mathematics and modes of public scholarship (/container/contribute.jsf?id=137210) Thompson, K.	2019-05-01 (submission)	Open for Submission
Mathematics and Rhetoric (/container/contribute.jsf?id=136602) Reyes, M.	2019-05-01 (submission)	Open for Submission
Mathematics and social justice (/container/contribute.jsf?id=136446) Alexander, N.	2019-05-01 (submission)	Open for Submission
Modes and modalities of mathematical authority: Disseminating the 'new infinite' (/container/contribute.jsf?id=139382) Valente, K.	2019-09-30 (submission)	Open for Submission
Moral mathematics	2019-05-01	

<a href="/container/contribute.jsf?id=136451">(/container/contribute.jsf?id=136451)</a> Voss, S.	(submission)	Open for Submission
Queer(y)ing Mathematical Knowledge <a href="/container/contribute.jsf?id=136440">(/container/contribute.jsf?id=136440)</a> Valente, K.	2019-09-30 (submission)	Open for Submission
<input type="checkbox"/> Show dormant and rejected chapters		1 - 111 of 111