# BRIDGES FINLAND 2016 CONFERENCE SCHEDULE August 9-13, 2016

#### University of Jyväskylä, Finland

Address: Mattilanniemi 2, Agora building

**REGISTRATION:** August 8, 2016, 10am – 6pm & Aug 9, 2016, 8:00am - 9:30am

#### **Tuesday August 9, 2016**

JYU	Auditorium 1	Welcome Remarks and the Memorial 9:30am – 10:20am	
		Bridges Finland 2016 Organizing Committee	
		Welcoming Remarks (No registration during this time)	
		Pozo Sarbangi Mamarial	
		Reza Sarhangi Memorial	

Carlo H. Séquin, George Hart, Craig S. Kaplan, Kristóf Fenyvesi, Michele Emmer and Sujan Shrestha

#### Break 10:20am – 10:30am

JYU Ple	nary Tal	k		Morning 10:30am – 12:30pm	SESSION 1	Chair: Eve Torrence
T AUG 9	Aud 1	10:30	PLEN	The Subtlety of Influence Math, Art, and Black Mountain Co Marjorie Wikler Senechal	ollege	
T AUG 9	Aud 1	11:30	PLEN	Squares that Look Round: Trans Saul Schleimer and Henry Segerma	• •	l Images

2016 Art Exhibition Opening 12:30pm – 1:00pm (Lea Pulkkinen Hall) Lunch Break 1:00pm – 2:30pm

JYU	Room 2			Midday 2:30pm – 4.00pm SESSION 2 Chair: Carlo H. Séquin				
T AUG	9 1	2:30	REG	The Elevation of Coxeter's Infinite Regular Polyhedron 444444				
				Rinus Roelofs				
T AUG	9 2	3:00	REG	Hypocycloid Juggling Patterns				
				Craig S. Kaplan				
T AUG	9 3	3:30	REG	From Klein Bottles to Modular Super-Bottles				
				Carlo H. Séquin				

JYU	Room 3			Midday 2:30pm – 4:00pm	SESSION 3	Chair: Donald Spector
T AUG S	1	2:30	REG	Geometric Circles in Aleksis Kiv	i's Texts	
				Tiina Katriina Kukkonen		
T AUG 9	2	3:00	REG	The Rhythm of a Pattern		
				Sama Mara		
T AUG 9	3	3:30	REG	Colors and Incomputability		
				Donald Spector		

JYU	Room 4			Midday 2:30pm – 4:00pm	SESSION 4	Chair: Kenneth Brecher
T AUG	9 1	2:30	SHRT	Possibilities of the Parabola		
				Robyn Gibson and Melissa Silk		
T AUG	9 2	2.45	SHRT	A Fast Algorithm for Creating	J Turing-McCabe Pa	itterns
				Markus Schwehm		
T AUG	9 3	3:00	SHRT	Three-Dimensional Score: Se	eing Music, Hearing	g Sculpture
				Miika Karttunen and Atte Tenka	anen	
T AUG	9 4	3:15	SHRT	The "Dual Nature" of the Poir	nt	
				János Szász Saxon		
T AUG	9 5	3:30	SHRT	Mathematics Meets Cinema:	La Figure de la Terr	e
				Osmo Pekonen and Axel Stras	chnoy	
T AUG	9 6	3:45	SHRT	Polyhedral Tableaux		
				Kenneth Brecher		

JYU R	oom 5/ 6			Midday 2:30pm – 4:00pm	SESSION 5	Workshop	
T AUG 9	Room 5	2:30	WORK	Mathematics Through the Mat Tom Petsinis	trix of Poetry		
T AUG 9	Room 6	2:30	WORK	Elliptic Paraboloids in Circum Nancy Mackin	polar Vernacular Ar	chitecture	

#### Coffee Break 4:00pm – 4:30pm

JYU	Room 2			Afternoon 4:30pm – 6:00pm	SESSION 6	Chair: Tom Verhoeff
T AUG	9 1	4:30	REG	A Graph-Theoretic Approach to th	e Analysis of Contra	a Dances
				Matthew Thomas and Crystal Peeble	es	
T AUG	9 2	5:00	REG	Planes and Frames: Spatial Layer	ing in Josef Albers'	Homage to the Square Paintings
				James Mai	-	
T AUG	9 3	5:30	REG	Three Mathematical Sculptures fo	r the Mathematikon	
				Tom Verhoeff and Koos Verhoeff		

JYU	Room 3			Afternoon 4:30pm – 6:00pm	SESSION 7	Chair: Gary R. Greenfield
T AUG	9 1	4:30	REG	Tuti Weaving		
				Abdalla G. M. Ahmed and Oliver De	eussen	
T AUG	9 2	5:00	REG	Modeling Braids, Cables, and We	aves with Stranded	Cellular Automata
				Joshua Holden and Lana Holden		
T AUG	9 3	5:30	REG	Turing-like Patterns from Cellula	r Automata	
				Gary R. Greenfield		

JYU	Room 4			Afternoon 4:30pm – 6:00pm SESSION 8 Chair: Nikita Mamedov
T AUG 9	9 1	4:30	SHRT	Teaching and Learning Basic Group Theory Through Building Models of Polyhedra
				Sviatoslav Archava, Leela Goel and Erin Traister
T AUG 9	9 2	4:45	SHRT	Molecular Modeling of Four-Connected Zeolite Frameworks with Mathematical Beading
				Chia-Chin Tsoo and Bih-Yaw Jin
T AUG 9	9 3	5:00	SHRT	A Zometool Model of the B-DNA
				László Vörös
T AUG 9	9 4	5:15	SHRT	Phylogenetic Analysis of the Ancient Greek Paeonic Rhythms
				Godfried T. Toussaint
T AUG 9	9 5	5:30	SHRT	A Musical Polyhedron Updated for the 21st Century
				Cathleen O'Neil
T AUG 9	9 6	5:45	SHRT	Prelude Op. 11, No. 1 by A. Scriabin: ICVSIM Relations
				Nikita Mamedov and Robert Peck

JYU CLab	1 / Room 5			Afternoon 4:30pm – 6:00pm	SESSION 9	Workshop
T AUG 9	CLab 1	4:30	WORK	Exploring the Arts Online with th	e Wolfram Language	)
				Christopher Carlson		
T AUG 9	Room 5	4:30	WORK	Rhombic Triacontahedron Puzzle	9	
				George Hart and Elisabeth Heathfie	eld	

Hosted by the city of Jyväskylä, City Hall
Address: Vapaudenkatu 32

# Wednesday August 10, 2016

JYU	Roo	m 2			Morning 9:30am – 11:00am	SESSION 10	Chair: Douglas M. McKenna
W AUG	10	1	9:30	REG	Hex Rosa		
					Markus Rissanen		
W AUG	10	2	10:00	REG	From Checkerboard to Cloverfie	eld: Using Wang Tile	s in Seamless Non-Periodic Patterns
					Tuomas Nurmi		
W AUG	10 3	3	10:30	REG	Tendril Motifs for Space-Filling,	Half-Domino Curves	S
					Douglas M. McKenna		

JYU	Room 3			Morning 9:30am – 11:00am	SESSION 11	Chair: Jay Zimmerman
W AUG <sup>2</sup>	0 1	9:30	REG	The Conformal Hyperbolic Squa	re and Its Ilk	
				Chamberlain Fong		
W AUG <sup>2</sup>	0 2	10:00	JMA	Almada Negreiros and the Geon	netric Canon	
				Simão Palmeirim Costa and Pedro	J. Freitas	
W AUG <sup>2</sup>	0 3	10:30	REG	Portraits of Groups on Bordered	l Surfaces	
				Jay Zimmerman		

JYU R	oom 4			Morning 9:30am – 11:00am SESSION 1	2 Chair: Samuel Verbiese		
W AUG 10	) 1	9:30	SHRT	Scales and Temperament from the Mathematical Viewpoint			
				Steven A. Bleiler and Ewan Kummel			
W AUG 10	) 2	9:45	SHRT	Constructing Meaning Through Making and Cr	eating		
				Gail Tang and Alan Tollefson	_		
W AUG 10	) 3	10:00	SHRT	Two Non-Octave Tunings by Heinz Bohlen: A F	Practical Proposal		
				Reilly Smethurst			
W AUG 10	) 4	10:15	SHRT	The Pentagonal Numbers Meet the Choose-4 N	umbers		
				James Morrow			
W AUG 10	) 5	10:30	SHRT	Off the Wall: A Brief Report			
				Charlene Morrow			
W AUG 10	) 6	10:45	SHRT	Bridges as an Incentive to Collaborative Works	s II		
				Anusch Bayens, Carlo De Pauw, Carmen Geens,	Mark Pieters, André Thomas, Alex Van		
				Bogaert, Samuel Verbiese and Nico Willemsens			

JYU Room 5/ CLab1				Morning 9:30am – 11:00am	SESSION 13	Workshop
W AUG 10	Room 5	9:30	WORK	Origami as a Tool for Exploring F	Properties of Platonic	c Solids
				Natalija Budinski	-	
W AUG 10	CLab 1	9:30	WORK	Spinning Arms in Motion: Explor	ing Mathematics wit	hin the Art of Figure Skating
				Tetyana Berezovski, Diana Cheng	and Rachel Damiano	_

#### Coffee Break 11:00am – 11:30am

JYU	Plenary Ta	alk		Morning 11:30am – 12:30pm	SESSION 14	Chair: Bruce Torrence
W AUG 1	0 Aud 1	11:30	PLEN	Immersion in Mathematics		
				Judy Holdener		

Coffee and Lunch Break 12:30pm – 2:30pm	
JMA Board meeting	

JYU	Room 2			Midday 2:30pm – 4:00pm	SESSION 15	Chair: Craig S. Kaplan
W AUG 1	0 1	2:30	REG	The Size and Shape of Utopia		
				Andrew Simoson		
W AUG 1	0 2	3:00	REG	Geometry and Aesthetics of Pentag	onal Structures in the	e Art of Gerard Caris
				Cornelie Leopold		
W AUG 1	0 3	3:30	REG	Combinatorial Poppies		
				Karl Kattchee and Craig S. Kaplan		

JYU R	oom 3			Midday 2:30pm – 4:00pm	SESSION 16	Chair: Dan G. Brown
W AUG 10	1	2:30	REG	A Mathematical Approach to Obtai Ramon Roel Orduño, Nicholas Winar Borhani and Ergun Akleman		
W AUG 10	2	3:00	REG	A Taxonomy of Generative Poetry Carolyn Lamb, Dan G. Brown and Ch	•	

JYU R	oom 4			Midday 2:30pm – 4:00pm	SESSION 17	Chair: Sharol Nau
W AUG 1	) 1	2:30	SHRT	The Fourth Dimension in M	athematics and Art	
				Jean Constant		
W AUG 1	) 2	2:45	SHRT	The Golden Ratio and the D	Diagonal of the Square	
				Gabriele Gelatti		
W AUG 1	) 3	3:00	SHRT	Blogging Math Art		
				Susan Happersett		
W AUG 1	) 4	3:15	SHRT	A Successful Art&Math Ext	nibition with Workshops II	
				Gisèle De Meur and Samuel	Verbiese	
W AUG 1	) 5	3:30	SHRT	The Math and Art of Folded	Books	
				Sharol Nau and Richard Nau		

JYU CL	ab1 / Rooi	n 5		Midday 2:30pm – 4:00pm SESSION 18 Workshop
W AUG 10	CLab 1	2:30	WORK	Legerdemain: Exploring Tessellation with CatsEye
				Douglas Easterly
W AUG 10	Room 5	2:30	WORK	(Pattern) <sup>2</sup>
				Liz Shreeve and Melissa Silk

#### Coffee Break 4:00pm – 4:30pm

JYU	Room	2			Afternoon 4:30pm – 6:00pm	SESSION 19	Chair: Ron Asherov
W AUG	10 1	4	4:30	REG	Another Look at Pentagonal Pers	ian Patterns	
					Jean-Marc Castera		
W AUG	10 2	5	5:00	REG	Geometric Patterns as Material T	hings: The Making of	Seljuk Patterns on Curved Surfaces
					Begüm Hamzaoğlu and Mine Özkar		
W AUG	10 3	5	5:30	REG	Underlying Tiles in a 15th Centur	y Mamluk Pattern	
					Ron Asherov	-	

JYU Ro	om 3			Afternoon 4:30pm – 6:00pm	SESSION 20	Chair: S. J. Spencer
W AUG 10	1	4:30	REG	Strictly Coding: Connecting Math		nrough Digital Making
				Pam Burnard, Zsolt Lavicza and Ca	rrie Anne Philbin	
W AUG 10	2	5:00	REG	Genera Esfera: Interacting with a	Trackball Mapped on	to a Sphere to Explore Generative
				Visual Worlds		
				Lali Barrière and Anna Carreras		
W AUG 10	3	5:30	REG	Not only Art but also Rocket Scie	nce	
				S. J. Spencer		

JYU Roo	m 4		Afternoon 4:30pm – 6:00pm	SESSION 21	Chair: David A. Reimann	
W AUG 10	1 4:30	SHRT	Teaching Combinatorics with "Pol Eleonóra Stettner and György Emese			
W AUG 10	2 4:45	SHRT	Sections of Coxeter Orbihedra Motiejus Valiunas, Emilio Zappa and	Briony Thomas		
W AUG 10	3 5:00	SHRT	Beautification of Islamic Patterns via Constraint Satisfaction Yongguan Lu and Erik D. Demaine			
W AUG 10	4 5:15	SHRT	Spelunking Adventure VI: An Equa Curtis Palmer	I Tempered Icosahedra	Il Scale	
W AUG 10	5 5:30	SHRT	Gödel, Escher, Bach: Just Another Hans Kuiper and Walt van Ballegooij			
W AUG 10	6 5:45	SHRT	Snub Polyhedral Forms Construct	ed from Flexible 60-120	Degree Rhombic Tiles	

JYU	Roo	m 5-6			Afternoon 4:30pm – 6:00pm	SESSION 22	Workshop	
W AU	G 10	Room 5	4:30	WORK	Putting Your Best Foot Forward:	<b>Movement and Mathe</b>	matics in College	
					Erik Stern and Julian Chan			
W AU	G 10	Room 6	4:30	WORK	Dual Models: One Shape to Make	e Them All		
					Mircea Draghicescu			

JYU	Room 7			Afternoon 4:30pm – 6:00pm	SESSION 23	Chair: Rebekah Rousi
T AUG	11 1	4:30	ABST	Engaging Diverse Students Throug	h Digital Literacy in a	n Australian University Enabling
				Program		
				Jennifer Stokes		
T AUG	11 2	4:45	ABST	Exploring Multiple Representations	: Animated Graphics	Interchange Format as a Cognitive
				Tool		
				Mara Alagic and Glyn Rimmington		
T AUG	11 3	5:00	ABST	Hypercross: Pure Mathematics Mee	ets Sacred Geometry	
				Silas Drewchin, John Hiigli and John	Saxon-Szasz	
T AUG	11 4	5:15	ABST	<b>Experiences of Guiding Questions</b>	in Life-Based Design	Education - Building Blocks for
				Vision Creation	-	_
				Rebekah Rousi		

#### ELEVATIONS AND STELLATIONS 7:00pm – 7:30pm

#### Meet the artist Rinus Roelofs at his exhibition in Keski-Suomen Luontomuseo Art Gallery of Central-Finland's Natural History Museum

Jyväskylä, Vesilinna, Ihantolantie 5

More info: http://bridgesmathart.org/bridges-2016/2016-additional-exhibits/rinus-roelofs-nl-elevations-stellations/

#### BRIDGES 2016 PUBLIC EVENT 8:30pm – 10:00pm Venue: Agora, Auditorium 1

Leonardo's Bridge in Ice by Arno Pronk (University of Eindhoven), Juhani Lillberg (International Association of Snow and Ice Sculpture), and Nina Heikkonen (Alvar Aalto Foundation).

Sponsored by Mathematical Sciences Research Institute (MSRI)

More info: http://bridgesmathart.org/bridges-2016/2016-leonardo-s-bridge-in-ice/

## Thursday August 11, 2016 Finnish Day

JYU F				Morning 9:30am – 11:00am SESSION 24 Chair: Kristóf Fenyvesi
T AUG 11	Aud 1	9:30	PLEN	Interdisciplinary Research, Learning and Innovation at University of Jyväskylä
				Kaisa Miettinen
T AUG 11	Aud 1	10:00	PLEN	Mathematics of Juggling: A Personal View
				Harri Varpanen
T AUG 11	Aud 1	10.30	PLEN	World as Numbers: Living in an Algorithmic Culture
				Raine Koskimaa

#### Coffee Break 11:00am – 11:30am

JYU Ple	enary Talk			Morning 11:30am – 12:30am SESSION 25 Chair: Osmo Pekonen
T AUG 11	Aud 1 1	11:30	PLEN	Crystal Flowers in Halls of Mirrors: Mathematics Meets Art and Architecture Kirsi Peltonen
T AUG 11	Aud 1 1	12:00	PLEN	Mathematics Learning through Arts and Collaborative Problem-Solving: The Princess and the Diamond-Problem Markus Hähkiöniemi, Kristóf Fenyvesi, Johanna Pöysä-Tarhonen, Mirja Tarnanen, Päivi Häkkinen, Merja Kauppinen, Anne Martin and Pasi Nieminen

#### Coffee and Lunch Break 12:30pm – 2:30pm

JYU R	oom 2			Midday 2:30pm – 4:00pm	SESSION 26	Chair: Roger Burrows
T AUG 11	2	2:30	REG	Artefacts to Enhance Geometr Zekeriya Karadag	ical Thinking	
T AUG 11	3	3.00	REG	Shape-Changing Polyhedra Roger Burrows		

JYU	Room 3			Midday 2:30pm – 4:00pm	SESSION 27	Chair: Javier Barrallo Calonge
T AUG	11 1	2:30	REG	Dancing Math: Teaching and Le Literacy Paul Moerman	earning in the Interse	ction of Aesthetic and Mathematical
T AUG	11 2	3:00	REG	Fostering Creativity in the Teac Javier Barrallo Calonge and Luis I	-	with Project Based Learning

JYU F	Room 4			Midday2:30pm – 4:00pmSESSION 28Chair: David Chappell
T AUG 1	1 1	2:30	SHRT	Pointillist Graphing of Iterated Function Systems
				Risto A. Paju
T AUG 1	1 2	2:45	SHRT	A New Algorithm for Rendering Kissing Schottky Groups
				Kento Nakamura and Kazushi Ahara
T AUG 1	1 3	3:00	SHRT	L-System Nomographs: Aesthetics to Calculation
				Leif Roschier and Ron Doerfler
T AUG 1	1 4	3:15	SHRT	Polygon Spirals
				Nick Mendler
T AUG 1	1 5	3:30	SHRT	Flatscape of Measure Polytopes
				Glenn C. Smith
T AUG 1	1 6	3:45	SHRT	Thoughts on Generative Art
				David Chappell

JYU	Room 7			Midday 2:30pm – 4:00pm SESSIC	ON 29	Chair: Katie McCallum
F AUG 1	1 1	2:30	SHRT	Organic 3D Mesh Creation Through Particle-Ba Sage Jenson	sed Physics S	imulation
F AUG 1	1 2	2:45	SHRT	<b>Digital Mechanics and The Rolling Coin Clock</b> Bjarne Jespersen		
F AUG 1	1 3	3:00	SHRT	Chladni Figures Revisited: A Peek Into The Thi Martin Skrodzki, Ulrich Reitebuch and Konrad Polt		
F AUG 1	1 4	3:15	SHRT	Baton Rolling on a Series of Curved Surfaces Akihiro Matsuura and Yuki Yamada		
F AUG 1	11 5	3:30	SHRT	A Eulogy in Honour of Anders Johan Lexell, an Joonas Ilmavirta and Johan CE. Stén	18th Century	Finnish Mathematician
F AUG 1	11 6	3:45	SHRT	Why Do Mathematical Presentations Sometime Katie McCallum	s Sound Like (	Cookery Shows?

JYU CL	.ab1 / Roo	m 5		Midday 2:30pm – 4:00pm SESSION 30 Workshop
T AUG 11	CLab 1	2:30	WORK	Euclid's Digital Elements: Straightedge and Compass Softwares as Aid for Geometrical
				Design
				Vladmir Sicca
T AUG 11	Room 5	2:30	WORK	Modelling Environmental Problem-Solving through STEAM Activities: 4Dframe's Warka
				Water Workshop
				Kristóf Fenyvesi, Ho-Gul Park, Taeyong Choi, Kwangcheol Song, Seungsuk Ahn

#### Coffee Break 4:00pm – 4:30pm

JYU Ro	om 2			Afternoon 4:30pm – 6:00pm	SESSION 31	Chair: Paul Gailiunas		
T AUG 11	1	4:30	REG	Interlinking Polyhedral Wire-Frames				
				Walt van Ballegooijen and Carlo H. Séc	Juin			
T AUG 11	2	5:00	REG	Euler-Cayley Formula for 'Unusual' P	uler-Cayley Formula for 'Unusual' Polyhedra			
				Dirk Huylebrouck	-			
T AUG 11	3	5:30	REG	Helical Petrie Polygons				
				Paul Gailiunas				

JYU R	om 3			Afternoon 4:30pm – 6:00pm	SESSION 32	Chair: Robert Bosch
T AUG 11	1	4:30	SHRT	Prime Portraits		
				Zachary Abel		
T AUG 11	2	4:45	SHRT	Representational Random Walks		
				Max Grusky		
T AUG 11	3	5:00	SHRT	Texturing Coloured Images in Blac	k and White	
				Hank Guss		
T AUG 11	4	5:15	SHRT	Creating the "Discover the Art of M	lath" Exhibition	
				Kertu Saks and Aare Baumer		
T AUG 11	5	5:30	SHRT	Mathematics on TV? Yes, We Can!		
				Rogério Martins		
T AUG 11	6	5:45	SHRT			
				Robert Bosch		

J	YU Ro	om 5/6			Afternoon 4:30pm – 6:00pm	SESSION 33	Workshop	
T	AUG 11	Room 5	4:30		Fractal Flipbooks Andrea Hawksley and Scott Kominers			
Т	AUG 11	Room 6	4:30	WORK	Lumifold: a STEAM Activity Melissa Silk and Jane Martin			

JYU Ro	oom 4			Afternoon 4:30pm – 6:00pm	SESSION 34	Chair: Susan Goldstine
T AUG 11	1	4:30	SHRT	Mathematikon: A Mathematical Sh	opping Center	
				Bianca Violet and Andreas Matt		
T AUG 11	2	4:45	SHRT	Pattern Design Using Cellular Auto	mata and Iterative Relo	ocation System
				Jae Kyun Shin and Seung Ryul Choi		
T AUG 11	3	5:00	SHRT	Sculpturing Surfaces with Cartan I	Ribbons	
				Matteo Raffaelli, Jakob Bohr and Ste	en Markvorsen	
T AUG 11	4	5:15	SHRT	Novel Textile Knot Designs Throug	jh Mathematical Knot D	liagrams
				Nithikul Nimkulrat and Janette Matthe	ews	-
T AUG 11	5	5:30	SHRT	Pied de Pulse: Packing Embroider	ed Circles and Coil Act	uators in
				Pied de Poule (Houndstooth)		
				Loe Feijs and Marina Toeters		
T AUG 11	6	5:45	SHRT	A Recursion in Knitting		
				Susan Goldstine		

JYU Roo	om 7			Afternoon 4:30pm – 6:00pm SESSION 35 Chair: Leena Turja
T AUG 11	1	4:30	ABST	Innovation of Mathematical Study through the Integration with Arts and Technologies Keigo Kawakubo and Ryosuke Nagaoka
T AUG 11	2	4:45	ABST	On the Artistic Aspects of Magic Squares Hossein Behforooz
T AUG 11	3	5:00	ABST	A Teaching and Learning Approach Based on Combination of Mathematics, Music and Digitally Mediated Learning Helps to Overcome Preservice Teachers Mathematical Anxiety Dawid Björkman, Alfred Landwehr Sydow, Behram Kelmendi, Sleyman Esso, Karin Boberg, Patrik Dinnétz, and Alla T. Alzhanova-Ericsson
T AUG 11	4	5:15	ABST	Volumetric Golden Ratio Spiral David Koski
T AUG 11	5	5:30	ABST	STEAMing in Early Childhood Education: Play-Based Workshops in Finnish Child Care Centers Leena Turja, Tarja Liinamaa, Mari Jatta Rissanen, Sari Lipponen and Terhi Laakso

THE ATHENIS FINLANDIAE CULTURAL EVENT 6:00PM

Venue: Jyväskylä University of Applied Sciences, Lutakko campus, Piippukatu 2

Registration is required at the Bridges 2016 Information Desk.

More info:

http://bridgesmathart.org/bridges-2016/2016-partner-events/the-athenis-finlandiae-cultural-event/

# Friday August 12, 2016

JYU	Rooi	m 2			Morning 9:30am – 11:00am S	SESSION 36	Chair: Robert W. Fathauer
F AUG	12 1	1	9:30	REG	Visual Arts and Mathematics Educati	ion: Looking for	r Integrative Phenomena
					Mirka Havinga and Päivi Portaankorva-	Koivisto	_
F AUG	12 2	2	10:00	REG	Koch-Like Fractal Images		
					Vince J. Matsko		
F AUG	12 3	3	10:30	REG	Fractal Gaskets: Reptiles, Hamiltonia	an Cycles, and S	Spatial Development
					Robert W. Fathauer	-	

JYU	Room 3			Morning 9:30am – 11:00am	SESSION 37	Chair: Gregg Helt	
F AUG	2 1	9:30	SHRT	<b>Repeating Fractal Patterns with 4</b> Douglas Dunham and John Shier	-Fold Symmetry		
F AUG	2 2	9:45	SHRT	A Rose By Any Other Name Gregg Helt			

JYU	Roc	m4			Morning 9:30am – 11:00am SESSION 38	Chair: Mike Naylor
F AUG	12	1	9:30	SHRT	The Hendecagonal Stars in the Alhambra	
					Dirk Huylebrouck and Antonia Redondo	
F AUG	12	2	9:45	SHRT	Classifying Hexagonal Tilings in Islamic Architectu	re with a Single Numerical Parameter
					Peter J. Lu and Eric Broug	
F AUG	12	3	10:00	SHRT	Generalized Brunes Stars and System of Pythagor	ean Triples
					Dmitri Kozlov	
F AUG	12	4	10:15	SHRT	Extracting Unit Cells from Tilings with Color Symm	etries: Case of Counterchange Patterns
					Venera Adanova and Sibel Tari	
F AUG	12	5	10:30	SHRT	Plane-Filling Curves on Transitive Grids	
					Jörg Arndt and Julia Handl	
F AUG	12	6	10:45	SHRT	Knight Mazes	
					Mike Naylor	

JYU I	Room 5/6/7			Morning 9:30am – 11:00am SESSION 39 Workshop
T AUG 1	2 Room 5	9:30	WORK	Mathematical and Physical Properties of Rope Made for Decorative Purposes
				Alexander Åström and Christoffer Åström
T AUG 1	2 Room 6	9:30	WORK	How to Draw Perspective Directly on a 3D Plane
				Tomás García Salgado
T AUG 1	2 Room 7	9:30	WORK	Similarity Drawn Freehand
				Teresa Downard

#### Coffee Break 11:00am - 11:30am

JYU I	lenary Ta	lk		Morning 11:30am – 12:30pm	SESSION 40	Chair: George Hart
F AUG 1	2 Aud 1	11:30	PLEN	ТВА		
				Corey Cerovsek		
F AUG 1	2 Aud 1	12:20	FLM	Bridges 2017		
				Craig S. Kaplan		

Coffee and Lunch Break 12:30pm – 2:00pm

# **Bridges Public Day 2:00pm – 6:00pm**

Venue: Agora

# Chair: Kristóf Fenyvesi

## Full Program: http://www.familyday.hu/

JYU Roo	<mark>m 2</mark>			Midday 2:00pm – 6:00pm
F AUG 12	1	2:00	SHOW	ROBERT BOSCH Bridges 2016 Short Movie Festival
F AUG 12	1	4:30	SHOW	Bridges 2016 Short Movie Festival
			More Info	o: http://bridgesmathart.org/bridges-2016/2016-short-movie-festival/

JYU Roo	<mark>m 3</mark>			Afternoon 2:00pm – 4:00pm
F AUG 12	1	2:00	SHOW	SARAH GLAZ Poetry Afternoon
			Mor	e Info: http://bridgesmathart.org/bridges-2016/2016-poetry-day/

JYU Roc	<mark>m 3</mark>			Afternoon 4:15pm – 6:00pm
F AUG 12	2	2:00	SHOW	<b>2016 Mathematical Theater</b> Hypatia's Circle Tom Petsinis More Info: http://bridgesmathart.org/bridges-2016/2016-mathematical-theater/

JYU				Evening 7:00pm – 7:30pm
F AUG 12	1	7:00	SHOW	Vivid Spirit and Tangram   Meet the mathematician and exhibitor of Vivid Spirit, Lajos Szilassi,   and the inventor of 4Dframe Hogul Park and the curators of the Tangram exhibit Kertu Saks and   Pirjo Vuorinen and education researcher Hannu Salmi.   Venue: Näyttelykeskus Soihtu (Soihtu Exhibition Center at University of Jyväskylä Campus)   Address: Jyväskylä, Seminaarinmäki, S-rakennus (S-building)   More Info: <a href="http://bridgesmathart.org/bridges-2016/2016-additional-exhibits/istvan-orosz-lajos-szilassi-vivid-spirit/">http://bridgesmathart.org/bridges-2016/2016-additional-exhibits/istvan-orosz-lajos-</a>

J	YU				Evening 8:30pm – 10:00pm
F	AUG 12	1	8:30	SHOW	Informal Music Night Venue: Auditorium 1 Coordinated by Mike Naylor

## Saturday August 13, 2016 Bridges Excursion Day & Music Night

## Bridges Music Night 6:30pm – 8:00pm

The program starts on Saturday, August 13 at 9:00AM with a visit to Alvar Aalto Museum, Jyväskylä. Buses are leaving from the Alvar Aalto Museum and return back to Jyväskylä by 11PM in the evening.

Ticket Price: EUR 63 per person, includes bus transportation, lunch, museum tickets, and a ticket to the evening musical concert. Booking and payment through the on-line registration form by July 31: <u>https://payments.jyu.fi/events/bridges\_finland\_2016</u>

More Info: http://bridgesmathart.org/bridges-2016/2016-music-night-and-excursion-day/

## Saturday, August 13, 2016 Bridges Excursion Day & Music Night Sightseeing Tour and Concert by the Corey Cerovsek & Paavali Jumppanen Duo



On Saturday, August 13, 2016, we invite you to join us to enjoy sightseeing, culture, art and the historical architectural visit to Alvar Aalto Museum, Jyväskylä and on a trip to the small town of Mänttä (approximately one hour drive from Jyväskylä). This journey will include a sightseeing tour around Jyväskylä region surrounded by the beautiful lakes and the natural woodlands, including UNESCO's World Heritage Church - the Old Church of Petäjävesi, known as a historical masterpiece of Scandinavian architecture worldwide. The evening program includes Music the **Bridges** 2016 Night programme with an exquisite concert in Mänttä Club house featuring Corey Cerovsek & Paavali Jumppanen.

# List of Rooms used in the Bridges 2016 conference program:

- Aud 1 = Auditorium 1
- Room 2 = Auditorium 2
- Room 3 = Auditorium 3
- Room 4 = Beeta
- Room 5 = Alfa
- Room 6 = Gamma
- Room 7 = Delta
- CLab1 (Computer Lab 1) = B211.1