

Program Overview

Mon	Reg.	Opening	Keynote 1	Sess 1	Keynote 2	Sess 2	Sess 3	
Tue			Keynote 3	Sess 4,5	Sess 6	Sess 7		Dinner
Wed			Bézier Awd	Sess 8	Posters	TRADES SMA	Ind Sess	Closing

Monday, June 11

8:15 – 8:45	On-Site Registration
8:45 – 9:00	Opening Remarks
9:00 – 10:00	Keynote 1 (chair: Takashi Maekawa)
	<i>Generalized Barycentric Coordinates</i> Kai Hormann
10:00 – 10:30	Coffee Break
10:30 – 12:10 Session 1 Manufacturing (chair: Vadim Shapiro)	<i>Automatic generation of globally assured collision free orientations for 5-axis ball-end tool-paths</i> Ben Ezair and Gershon Elber
	<i>Automated process planning for hybrid manufacturing</i> Morad Behandish , Saigopal Nelaturi, and Johan de Kleer
	<i>Embedding QR codes onto B-spline surfaces for 3D printing</i> Ryosuke Kikuchi, Sora Yoshikawa, Pradeep Kumar Jayaraman, Jianmin Zheng, and Takashi Maekawa
	<i>Average and variance of a family of quasi-parallel surfaces</i> Mukul Sati and Jarek Rossignac
12:10 – 14:00	Lunch Break
14:00 – 15:00	Keynote 2 (chair: Jessica Zhang)
	<i>Battles with Overhangs in 3D Printing</i> Charlie Wang
15:00 – 16:15 Session 2 Modeling 1 (chair: Leif Kobbelt)	<i>Multiscale shape-material modeling by composition</i> Xingchen Liu and Vadim Shapiro
	<i>Hierarchical, random and bifurcation tiling with heterogeneity in micro-structures construction via functional composition</i> Fady Massarwi , Jinesh Machchhar, Pablo Antolín, and Gershon Elber
	<i>QUADOR: QUADric-Of-Revolution beams for lattices</i> Ashish Gupta , Allen George, and Jarek Rossignac
16:15 – 16:45	Coffee Break
16:45 – 18:00 Session 3 Modeling 2 (chair: Kai Hormann)	<i>A moment-vector approach to interoperable analysis</i> Andrew Taber , Goldy Kumar, Michael Freytag and Vadim Shapiro
	<i>Decorating 3D models with Poisson vector graphics</i> Qian Fu, Fei Hou, Qian Sun, Shiqing Xin, Yongjin Liu, Wencheng Wang, Hong Qin, and Ying He
	<i>A direct and local method for computing polynomial Pythagorean-normal patches with global G^1 continuity</i> Michal Bizzarri , Miroslav Lávička, Jan Vršek, and Jiří Kosinka

Tuesday, June 12

9:00 – 10:00	Keynote 3 (chair: Johannes Wallner)
	<i>Quad Partitioning of Freeform Surfaces</i> Leif Kobbelt
10:00 – 10:30	Coffee Break
10:30 – 11:20 Session 4 Path Planning (chair: Charlie Wang)	<i>Lightweight preprocessing and fast query of geodesic distance via proximity graph</i> Shiqing Xin, Wenping Wang, Ying He , Yuanfeng Zhou, Shuangmin Chen, and Changhe Tu <i>Curvature continuous path planning and path finding based on PH splines with tension (Invited CAD paper)</i> Marco Donatelli, Carlotta Giannelli, Duccio Mugnaini , and Alessandra Sestini
11:20 – 12:10 Session 5 Topology Optimization (chair: John Evans)	<i>Continuous optimization of adaptive quadtree structures</i> Jun Wu <i>Discrete multi-material topology optimization under total mass constraint</i> Xingtong Yang and Ming Li
12:10 – 14:00	Lunch Break
14:00 – 15:15 Session 6 Subdivision Surfaces & Isogeometric analysis (chair: Jörg Peters)	<i>Refinable bi-quartics for design and analysis</i> Kestutis Karciauskas and Jörg Peters <i>Subdivision surfaces with isogeometric analysis adapted refinement weights</i> Qiaoling Zhang , Malcolm Sabin, and Fehmi Cirak <i>Isogeometric unstructured tetrahedral and mixed-element Bernstein-Bézier discretization (invited CMAME paper)</i> Luke Engvall and John A. Evans
15:15 – 15:45	Coffee Break
15:45 – 17:00 Session 7 Reconstruction (chair: Ying He)	<i>Fitting and fairing Hermite-type data by matrix weighted NURBS curves</i> Xunnian Yang <i>Sparse3D: A sparse reconstruction technique for RGB-D dataset with small inter-frame overlap</i> Canyu Le and Xin Li <i>Point cloud resampling using centroidal Voronoi tessellation methods</i> Zhonggui Chen, Tieyi Zhang , Juan Cao, Yongjie Jessica Zhang, and Cheng Wang
20:15 – open	Conference Dinner

Wednesday, June 13

9:00 – 10:30	Bézier Award and Lecture (chair: Jarek Rossignac)
	<i>Geometry at the Interface of Technology and Design</i> Helmut Pottmann
10:30 – 11:00	Coffee Break
11:00 – 12:15	<i>Hexahedral meshing: Mind the gap!</i> Nicolas Ray , Dmitry Sokolov, and Bruno Lévy
Session 8 Tessellation (chair: Elaine Cohen)	<i>Optimal power diagrams via function approximation</i> Yanyang Xiao , Yanyang Xiao, Zhonggui Chen, Juan Cao, Yongjie Jessica Zhang, and Cheng Wang
	<i>Scaffolding skeletons using spherical Voronoi diagrams: feasibility, regularity and symmetry</i> Alvaro Javier Fuentes Suárez and Evelyne Hubert
12:15 – 14:00	Lunch Break
14:00 – 14:30	Poster Session
14:30 – 15:15	<i>How do we balance shape with materials?</i> Jan Vandenbrande
15:15 – 15:45	<i>SMA: Solid Modeling awards, elections, and plans for future SPM events</i> Jarek Rossignac
15:45 – 16:15	Coffee Break
16:15 – 17:00	Confirmed Presenters: Suraj Musuvathy (Siemens), Andrew Taber (Intact Solutions), Alvaro Ochoa Bañares & Aianara Duque (Sener), Eneko Olabarrieta (Tekniker-IK4), Johan de Kleer (PARC), Angel Martinez Aja (ITP Aero)
17:00 – 17:15	Best paper award
17:15 – 17:30	Closing Ceremony