

# 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	<b>On-Site Registration</b>
8:45 – 9:00	<b>Opening Remarks</b>
9:00 – 10:00	<b>Keynote 1</b> (chair: <b>Takashi Maekawa</b> )
	<i>Generalized Barycentric Coordinates</i> <b>Kai Hormann</b>
10:00 – 10:30	Coffee Break
10:30 – 12:10 <b>Session 1</b> <b>Manufacturing</b> (chair: <b>Vadim Shapiro</b> )	<i>Automatic generation of globally assured collision free orientations for 5-axis ball-end tool-paths</i> <b>Ben Ezair</b> and Gershon Elber
	<i>Automated process planning for hybrid manufacturing</i> <b>Morad Behandish</b> , 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 <b>Takashi Maekawa</b>
	<i>Average and variance of a family of quasi-parallel surfaces</i> Mukul Sati and <b>Jarek Rossignac</b>
12:10 – 14:00	Lunch Break
14:00 – 15:00	<b>Keynote 2</b> (chair: <b>Jessica Zhang</b> )
	<i>Battles with Overhangs in 3D Printing</i> <b>Charlie Wang</b>
15:00 – 16:15 <b>Session 2</b> <b>Modeling 1</b> (chair: <b>Leif Kobbelt</b> )	<i>Multiscale shape-material modeling by composition</i> <b>Xingchen Liu</b> and Vadim Shapiro
	<i>Hierarchical, random and bifurcation tiling with heterogeneity in micro-structures construction via functional composition</i> <b>Fady Massarwi</b> , Jinesh Machchhar, Pablo Antolín, and Gershon Elber
	<i>QUADOR: QUADric-Of-Revolution beams for lattices</i> <b>Ashish Gupta</b> , Allen George, and Jarek Rossignac
16:15 – 16:45	Coffee Break
16:45 – 18:00 <b>Session 3</b> <b>Modeling 2</b> (chair: <b>Kai Hormann</b> )	<i>A moment-vector approach to interoperable analysis</i> <b>Andrew Taber</b> , 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 <b>Ying He</b>
	<i>A direct and local method for computing polynomial Pythagorean-normal patches with global <math>G^1</math> continuity</i> <b>Michal Bizzarri</b> , Miroslav Lávička, Jan Vršek, and Jiří Kosinka

## Tuesday, June 12

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

## Wednesday, June 13

9:00 – 10:30	<b>Bézier Award and Lecture</b> (chair: <b>Jarek Rossignac</b> )
	<i>Geometry at the Interface of Technology and Design</i> <b>Helmut Pottmann</b>
10:30 – 11:00	Coffee Break
11:00 – 12:15	<i>Hexahedral meshing: Mind the gap!</i> <b>Nicolas Ray</b> , Dmitry Sokolov, and Bruno Lévy
<b>Session 8</b> <b>Tessellation</b> (chair: <b>Elaine Cohen</b> )	<i>Optimal power diagrams via function approximation</i> <b>Yanyang Xiao</b> , Yanyang Xiao, Zhonggui Chen, Juan Cao, Yongjie Jessica Zhang, and Cheng Wang
	<i>Scaffolding skeletons using spherical Voronoi diagrams: feasibility, regularity and symmetry</i> <b>Alvaro Javier Fuentes Suárez</b> 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> <b>Jan Vandenbrande</b>
15:15 – 15:45	<i>SMA: Solid Modeling awards, elections, and plans for future SPM events</i> <b>Jarek Rossignac</b>
15:45 – 16:15	Coffee Break
16:15 – 17:00	<b>Confirmed Presenters:</b> 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	<b>Best paper award</b>
17:15 – 17:30	<b>Closing Ceremony</b>