

PACIFIC GRAPHICS 2019



PACIFIC GRAPHICS 2019 SCHEDULE

KOREA UNIVERSITY - SEOUL, OCTOBER 14-17, 2019

Day 1

Monday October 14th

● Keynote ● Regular Session ● Work-in-Progress

● Grand Ballroom (B112) ● Multimedia Room (B115) ● Exhibition Room (B116)

09:00 - 10:45	Registration	
10:45 - 11:10	Opening Ceremony and Award ●	
11:10 - 12:30	Color and Image ●	
12:30 - 14:00	Lunch (Science Library)	
14:00 - 15:40	Geometric Modeling ●	WIP (Light, Depth, and Simulation) ●
15:40 - 16:10	Poster session & Coffee break ●	
16:10 - 17:30	Lines and Sketches ●	Natural Phenomena ●
18:30	Reception (The Korea House)	

Day 2

Tuesday October 15th

09:00 - 09:30	Registration	
09:30 - 10:50	Image Processing ●	Perception and Visualization ●
10:50 - 11:10	Coffee break ●	
11:10 - 12:30	Animation ●	Computational Photography ●
12:30 - 14:00	Lunch (Science Library)	
14:00 - 15:00	Keynote : The Science to Create the Magic - Markus Gross ●	
15:00 - 15:20	Coffee break ●	
15:20 - 16:40	Voxels and Polycubes ●	WIP (Browsing and Learning) ●
16:40 - 17:10	Poster session & Coffee break ●	
17:10 - 18:30	Multi-View and VR ●	Generative Models ●

Day 3

Wednesday October 16th

09:00 - 09:30	Registration	
09:30 - 10:50	Rendering and Sampling •	Images and Learning •
10:50 - 11:10	Coffee break *	
11:10 - 12:30	Cloth and Fluid •	Image Based Rendering •
12:30 - 14:00	Lunch (Science Library)	
14:00 - 15:00	Keynote : Virtual Cyborg: Beyond Human Limits - Masahiko Inami •	
15:00 - 15:20	Coffee break *	
15:20 - 16:20	Global Illumination •	
16:20 - 16:40	Coffee break *	Electronic Theater •
16:40 - 18:20	Shape Analysis •	
18:45	Banquet (Korea University Faculty House)	

Day 4

Thursday October 17th

09:00 - 09:30	Registration	
09:30 - 10:50	Image and Video Editing •	Surface and Texture •
10:50 - 11:10	Coffee break *	
11:10 - 12:30	Keynote : Perception Driven Computational Shape Design - Alla Sheffer •	
12:30 - 14:00	Lunch (Science Library)	
14:00 - 15:00	Rendering and Lighting •	Surfaces •
15:00 - 15:20	Coffee break *	
15:20 - 16:40	Modeling Interfaces •	
16:40 - 17:00	Closing session	

MONDAY, 14 OCTOBER

Opening Ceremony and Award

10:45 AM – 11:10 PM, B112

Color and Image

11:10 AM – 12:30 PM, B112

Sung Hyun Cho

Succinct Palette and Color Model Generation and Manipulation Using Hierarchical Representation

Taehong Jeong, Myunghyun Yang, Hyun Joon Shin

An Improved Geometric Approach for Palette-Based Image Decomposition and Recoloring

Yili Wang, Yifan Liu, Kun Xu

Generic Interactive Pixel-Level Image Editing

Yun Liang, Yibo Gan, Mingqin Chen, Diego Gutierrez, Adolfo Muñoz

Superpixel Generation by Agglomerative Clustering with Quadratic Error Minimization

Xiao Dong, Zhonggui Chen, Junfeng Yao, Xiaohu Guo

Geometric Modeling

2:00 PM – 3:40 PM, B112

Young J. Kim

Active Scene Understanding via Online Semantic Reconstruction

Lintao Zheng, Chenyang Zhu, Jiazhao Zhang, Hang Zhao, Hui Huang, Matthias Niessner, Kai Xu

Surface Fairing towards Regular Principal Curvature Line Networks

Lei Chu, Pengbo Bo, Yang Liu, Wenping Wang

Subdivision Schemes for Quadrilateral Meshes with the Least Polar Artifact in Extraordinary Regions

Yue Ma, Weiyin Ma

Imitating Popular Photos to Select Views for an Indoor Scene

Rung-De Su, Zhe-Yo Liao, Li-Chi Chen, Ai-Ling Tung, Yu-Shuen Wang

Connectivity-Preserving Smooth Surface Filling with Sharp Features

Thibault Lescoat, Pooran Memari, Jean-Marc Thiery, Maks Ovsjanikov, Tamy Boubekeur

Work-in-Progress (Light, Depth, and Simulation)

2:00 PM – 3:40 PM, B115

Sungeui Yoon

Capturing Polarimetric SVBRDF and Normals

Seung-Hwan Baek, Min H. Kim

Diffractive Hyperspectral Imaging

Daniel S. Jeon, Min H. Kim

Depth Warping and Its Applications

Sungkil Lee

Biologically Inspired Muscle Actuators for Soft-Bodied Underwater Animals

Sehee Min, Jungdam Won, Seunghwan Lee, Jungnam Park, Jehee Lee

Temporal Upsampling of Point Cloud Sequences by Optimal Transport for Plant Growth Visualization

Tim Golla, Tom Kneiphof, Lasse Klingbeil, Heiner Kuhlmann, Michael Weinmann, Reinhard Klein

Posters

3:40 PM – 4:10 PM, B116

Cinematography Generation Using a Reference Video

*Kwanggyoon Seo, Sanghun Park, Jung Eun Yoo, Jaedong Kim,
Dawon Lee, Junyong Noh*

Real-time Global Illumination for Point Set Using GPUs

Heajung Min, Young J. Kim

Collaborative 3D Modeling System Based on Blockchain

Hunmin Park, Sungeui Yoon

DeepIK: On-line Inverse Kinematics Using Deep Learning

Eunjun Jang, Daseong Han

Performance-Driven Character Control with Parameter Adaptation

Kyungho Lee, Jehee Lee

Haptic Interfaces for Tangible Digital Painting in VR

Minyoung Kim, Young J. Kim

Dart Estimation for Generating Garment Pattern from 3D Models

Mingi Yeom, Seungbae Bang, Sung-Hee Lee

Lines and Sketches

4:10 PM – 5:30 PM, B112

Seungyong Lee

RegionSketch: Interactive and Rapid Creation of 3D Models with Rich Details

Shuai Liu, Fei Hou, Aimin Hao, Hong Qin

Learning to Trace: Expressive Line Drawing Generation from Photographs

Naoto Inoue, Daichi Ito, Ning Xu, Jimei Yang, Brian Price, Toshihiko Yamasaki

Deep Line Drawing Vectorization via Line Subdivision and Topology Reconstruction

Yi Guo, Zhuming Zhang, Chu Han, Wenbo Hu, Chengze Li, Tien-Tsin Wong

Pencil Drawing Video Rendering Using Convolutional Networks

Dingkun Yan, Yun Sheng, Xiaoyang Mao

Natural Phenomena

4:10 PM – 5:30 PM, B115

Inkwon Lee

Procedural Riverscapes

Adrien Peytavie, Thibault Dupont, Eric Guérin, Yann Cortial, Bedrich Benes, James Gain, Eric Galin

Desertscapes Simulation

Axel Paris, Adrien Peytavie, Eric Guérin, Oscar Argudo, Eric Galin

Parallel Generation and Visualization of Bacterial Genome Structures

Tobias Klein, Peter Mindek, Ludovic Autin, David S. Goodsell, Arthur J. Olson, Eduard Gröller, Ivan Viola

TUESDAY, 15 OCTOBER

Image Processing

9:30 AM – 10:50 AM, B112

Sangil Park

Scale-Adaptive Structure-Preserving Texture Filtering

Chengfang Song, Chunxia Xiao, Ling Lei, Haigang Sui

Rain Wiper: An Incremental Randomly Wired Network for Single Image Deraining

Xiwen Liang, Bin Qiu, Zhuo Su, Chengying Gao, Xiaohong Shi, Ruomei Wang

Field-Aligned Quadrangulation for Image Vectorization

Guangshun Wei, Yuanfeng Zhou, Xifeng Gao, Qian Ma, Shiqing Xin, Ying He

Learning Explicit Smoothing Kernels for Joint Image Filtering

Xiaonan Fang, Miao Wang, Ariel Shamir, Shi-Min Hu

Perception and Visualization

9:30 AM – 10:50 AM, B115

Junyong Noh

A Psychophysical Analysis of Fabricated Anisotropic Appearance

Jiri Filip, Martina Kolafova, Radomir Vavra

Gaze Attention and Flow Visualization Using the Smudge Effect

Sangbong Yoo, Seongmin Jeong, Seokyeon Kim, Yun Jang

ManyLands: A Journey Across 4D Phase Space of Trajectories

Aleksandr Amirkhanov, Ilona Kosiuk, Peter Szabolcs, Artem Amirkhanov, Gabriel Mistelbauer, Eduard Gröller, Renata Georgia Raidou

Inertia-Based Fast Vectorization of Line Drawings

Patryk Najgebauer, Rafal Scherer

Animation

11:10 AM – 12:30 PM, B112

Taesoo Kwon

Generating 3D Faces Using Multi-Column Graph Convolutional Networks

Kun Li, Jingying Liu, Yu-Kun Lai, Jingyu Yang

Figure Skating Simulation from Video

Ri Yu, Hwangpil Park, Jehee Lee

Towards Biomechanically and Visually Plausible Volumetric Cutting Simulation of Deformable Bodies

Yinling Qian, Wenbin Huang, Weixin Si, Xiangyun Liao, Qiong Wang, Pheng-Ann Heng

Towards Robust Direction Invariance in Character Animation

Li-Ke Ma, Zeshi Yang, Baining Guo, KangKang Yin

Computational Photography

11:10 AM – 12:30 PM, B115

Min H. Kim

Dual Illumination Estimation for Robust Exposure Correction

Qing Zhang, Yongwei Nie, Wei-Shi Zheng

Specular Highlight Removal for Real-World Images

Gang Fu, Qing Zhang, Chengfang Song, Qifeng Lin, Chunxia Xiao

Light Field Video Compression and Real Time Rendering

Saghi Hajisharif, Ehsan Miandji, Per Larsson, Kiet Tran, Jonas Unger

Naturalness-Preserving Image Tone Enhancement Using Generative Adversarial Networks

Hyeongseok Son, Gunhee Lee, Sunghyun Cho, Seungyong Lee

Keynote

2:00 PM – 3:00 PM, B112

The Science to Create the Magic

Markus Gross

Voxels and Polycubes

3:20 PM – 4:40 PM, B112

Wenping Wang

Practical Foldover-Free Volumetric Mapping Construction

Jian-Ping Su, Xiao-Ming Fu, Ligang Liu

Computing Surface PolyCube-Maps by Constrained Voxelization

Yang Yang, Xiao-Ming Fu, Ligang Liu

Polycube Shape Space

Hui Zhao, Xuan Li, Wencheng Wang, Xiaoling Wang, Shaodong Wang, Na Lei, Xianfeng Gu

Compacting Voxelized Polyhedra via Tree Stacking

Yue Hao, Jyh-Ming Lien

Work-in-Progress (Browsing and Learning)

3:20 PM – 4:40 PM, B115

Min H. Kim

Interactive and Automatic Navigation for 360° Video Playback

Kyoungkook Kang, Sunghyun Cho

Physics-Based Interactive Character Control Using Deep Learning
Soohwan Park, Hoseok Ryu, Seyoung Lee, Sunmin Lee, Jehee Lee

A Latent Space for Browsing an Environment Map Database
Lohit Petikam, Andrew Chalmers, Taehyun Rhee

Adaptive Incident Radiance Field Sampling and Reconstruction Using Deep Reinforcement Learning
Huo Yuchi, Rui Wang, Hujun Bao, Sungeui Yoon

Posters

4:40 PM – 5:10 PM, B116

Multi-View and VR

5:10 PM – 6:30 PM, B112

Young Min Kim

Pyramid Multi-View Stereo with Local Consistency
Jie Liao, Yanping Fu, Qingshan Yan, Chunxia Xiao

Automatic Modeling of Cluttered Multi-Room Floor Plans from Panoramic Images

Giovanni Pintore, Fabio Ganovelli, Alberto Jaspe Villanueva, Enrico Gobbetti

A Generalized Cubemap for Encoding 360° VR Videos Using Polynomial Approximation

Jianye Xiao, Jingtao Tang, Xinyu Zhang

VERAM: View-Enhanced Recurrent Attention Model for 3D Shape Classification

Songle Chen, Lintao Zheng, Yan Zhang, Zhixin Sun, Kai Xu

Generative Models

5:10 PM – 6:30 PM, B115

Junghyun Han

Interactive Curation of Datasets for Training and Refining Generative Models

Wenjie Ye, Yue Dong, Pieter Peers

Shadow Inpainting and Removal Using Generative Adversarial Networks with Slice Convolutions

Jinjiang Wei, Chengjiang Long, Hua Zou, Chunxia Xiao

HideGAN : High Capacity Information Hiding with Generative Adversarial Network

Zihan Wang, Neng Gao, Xin Wang, Ji Xiang, Daren Zha, Linghui Li

Two-Phase Hair Image Synthesis by Self-Enhancing Generative Model

Haonan Qiu, Chuan Wang, Hang Zhu, Xiangyu Zhu, Jinjin Gu, Xiaoguang Han

WEDNESDAY, 16 OCTOBER

Rendering and Sampling

9:30 AM – 10:50 AM, B112

Sungkil Lee

Visibility-Aware Progressive Farthest Point Sampling on the GPU

Sascha Brandt, Claudius Jahn, Matthias Fischer, Friedhelm Meyer auf der Heide

Unsupervised Dense Light Field Reconstruction with Occlusion Awareness

Lixia Ni, Haiyong Jiang, Jianfei Cai, Jianmin Zheng, Haifeng Li, Xu Liu

Seamless Mipmap Filtering for Dual Paraboloid Maps

Zhenni Wang, Tze Yui Ho, Chi-Sing Leung, Eric Wing Ming Wong

Real-Time Indirect Illumination of Emissive Inhomogeneous Volumes using Layered Polygonal Area Lights

Takahiro Kuge, Tatsuya Yatagawa, Shigeo Morishima

Images and Learning

9:30 AM – 10:50 AM, B115

Shi-Min Hu

Learning to Paint using Self-Supervised Learning

Biao Jia, Jonathan Brandt, Radomir Mech, Byungmoon Kim, Dinesh Manocha

A Unified Neural Network for Panoptic Segmentation

Yao Li, Ang Chyau

Style Mixer: Semantic-Aware Multi-Style Mixing Network

Zixuan Huang, Jinghuai Zhang, Jing Liao

A Color-Pair Based Approach for Accurate Color Harmony Estimation
Bailin Yang, Tianxiang Wei, Xianyong Fang, Zhigang Deng, Frederick W. B. Li, Yun Ling, Xun Wang

Cloth and Fluid

11:10 AM – 12:30 PM, B112

Jinho Park

Mechanics-Aware Modeling of Cloth Appearance

Zahra Montazeri, Chang Xiao, Yun Raymond Fei, Changxi Zheng, Shuang Zhao

External Forces Guided Fluid Surface and Volume Reconstruction from Monocular Video

Xiaoying Nie, Yong Hu, Zhiyuan Su, Xukun Shen

Distribution Update of Deformable Patches for Texture Synthesis on the Free Surface of Fluids

Jonathan Gagnon, Julián Guzmán, Valentin Vervondel, Francois Dagenais, David Mould, Eric Paquette

A Rigging-Skinning Scheme to Control Fluid Simulation

Jia-Ming Lu, Xiaosong Chen, Xiao Yan, Chen-Feng Li, Ming Lin, Shi-Min Hu

Image Based Rendering

11:10 AM – 12:30 PM, B115

Kun Xu

Deep Video-Based Performance Synthesis from Sparse Multi-View Capture

Mingjia Chen, Changbo Wang, Ligang Liu

Appearance Flow Completion for Novel View Synthesis

Hoang Le, Feng Liu

FontRNN: Generating Large-Scale Chinese Fonts via Recurrent Neural Network

Shusen Tang, Zeqing Xia, Zhouhui Lian, Yingmin Tang, Jianguo Xiao

Learning to Predict Image-Based Rendering Artifacts with Respect to a Hidden Reference Image

Mojtaba Bemana, Joachim Keinert, Karol Myszkowski, Michel Batz, Matthias Ziegler, Hans-Peter Seidel, Tobias Ritschel

Keynote

2:00 PM – 3:00 PM, B112

Virtual Cyborg: Beyond Human Limits

Masahiko Inami

Global Illumination

3:20 PM – 4:20 PM, B112

Kang Hoon Lee

High Dynamic Range Point Clouds for Real-Time Relighting

Manuele Sabbadin, Gianpaolo Palma, Francesco Banterle, Tamy Boubekeur, Paolo Cignoni

Offline Deep Importance Sampling for Monte Carlo Path Tracing

Steve Bakó, Mark Meyer, Tony DeRose, Pradeep Sen

Spectral Analysis of Quadrature Rules and Fourier Truncation-Based Methods Applied to Shading Integrals

Ricardo Marques, Christian Bouville and Kadi Bouatouch

Shape Analysis

4:40 PM – 6:20 PM, B112

Alec Jacobson

Mesh Defiltering via Cascaded Geometry Recovery

Mingqiang Wei, Xianglin Guo, Jin Huang, Xie Haoran, Hua Zong, Reggie Kwan, Fu Lee Wang, Jing Qin

Topology Preserving Simplification of Medial Axes in 3D Models

Yiyao Chu, Fei Hou, Wencheng Wang, Lei Li

Extracting Feature Curve Networks from 3D Models

Lu Zhengda, Jianwei Guo, Jun Xiao, Ying Wang, Xiaopeng Zhang, Dongming Yan

Intrinsic Symmetry Detection on 3D Models with Skeleton-Guided Combination of Extrinsic Symmetries

Wencheng Wang, Junhui Ma, Panpan Xu, Yiyao Chu

Single-View Modeling of Layered Origami with Plausible Outer Shape

Yuya Kato, Shinichi Tanaka, Yoshihiro Kanamori, Jun Mitani

Electronic Theater

3:20 PM – 6:20 PM, B115

THURSDAY, 17 OCTOBER

Image and Video Editing

9:30 AM – 10:50 AM, B112

Hyun Joon Shin

Image Composition of Partially Occluded Objects

Xuehan Tan, Panpan Xu, Shihui Guo, Wencheng Wang

A PatchMatch-Based Approach for Matte Propagation in Videos

Marcos H. Backes, Manuel M. Oliveira

Wavelet Flow: Optical Flow Guided Wavelet Facial Image Fusion

Hong Ding, Qingan Yan, Gang Fu, Chunxia Xiao

ShutterApp: Spatio-Temporal Exposure Control for Videos

Nestor Z. Salamon, Markus Billeter, Elmar Eisemann

Surface and Texture

9:30 AM – 10:50 AM, B115

Kyungho Lee

Selecting Texture Resolution Using a Task-Specific Visibility Metric

Krzysztof Wolski, Daniele Giunchi, Kinuwaki Shinichi, Piotr Didyk, Karol Myszkowski, Anthony Steed, Rafal K. Mantiuk

Global Texture Mapping for Dynamic Objects

Jungeon Kim, Hyomin Kim, Jaesik Park, Seungyong Lee

Discrete Calabi Flow: A Unified Conformal Parameterization Method

Ke Hua Su, Chen Chen Li, Yu Ming Zhou, Xu Xu, Xianfeng Gu

Reliable Rolling-Guided Point Normal Filtering for Surface Texture Removal

Yangxing Sun, Honghua Chen, Jing Qin, Hongwei Li, Mingqiang Wei, Hua Zong

Keynote

11:10 AM – 12:30 PM, B112

Perception Driven Computational Shape Design

Alla Sheffer

Rendering and Lighting

2:00 PM – 3:00 PM, B112

Dongho Kim

Lighting Layout Optimization for 3D Indoor Scenes

Sam Jin, Sung-Hee Lee

Physically-Based Real-Time Rendering of Teeth and Partial Restorations

M. Reischl, E. Derzapf, M. Guthe

A Stationary SVBRDF Material Modeling Method Based on Discrete Microsurface

Junqiu Zhu, Yanning Xu, Lu Wang

Surfaces

2:00 PM – 3:00 PM, B115

Taku Komura

3D Human Body Skeleton Extraction from Consecutive Surfaces Using a Spatial-Temporal Consistency Model

Yong Zhang, Fei Tan, Shaofan Wang, Dehui Kong, Baocai Yin

Automatic Design of Cable-Tensioned Glass Shells

Francesco Laccone, Luigi Malomo, Maurizio Froli, Paolo Cignoni, Nico Pietroni

Anisotropic Surface Remeshing without Obtuse Angles

Qunce Xu, Dong-Ming Yan, Wenbin Li, Yong-Liang Yang

Modeling Interfaces

3:20 PM – 4:40 PM, B112

Sunghee Lee

Interactive Iconized Grammar-Based Pailou Modeling

Zhong-Qi Cai, Ying-Sheng Luo, Yu-Chi Lai, Chih-Shiang Chan, Wen-Kai Tai

RodSteward: A Design-to-Assembly System for Fabrication using 3D-Printed Joints and Precision-Cut Rods

Alec Jacobson

Localization and Completion for 3D Object Interactions

Xi Zhao, Ruizhen Hu, Haisong Liu, Taku Komura, Xinyu Yang

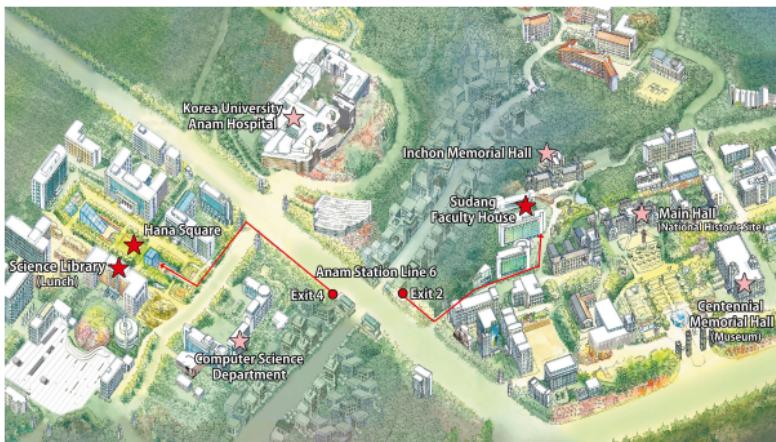
Learning Style Compatibility between Objects in a Real-World 3D Asset Database

Yifan Liu, Ruolan Tang, Daniel Ritchie

PACIFIC GRAPHICS 2019 INFORMATION

Conference Venue - Hana Square, Korea University

Hana Square 145, Anam-ro, Seongbuk-gu, Seoul, Republic of Korea



From Incheon International Airport

By Subway: Take Airport Railroad, transfer to Line 6 at Gongdeok Station, and exit at Anam Station

By Limousine Bus: Take bus no. 6101 or 6102 and get off at Korea University or Sungrye Elementary School stop (15-minute walk to Hana Square)

From Kimpo Airport

By Subway: Take Airport Railroad, transfer to Line 6 at Gongdeok Station, and exit at Anam Station

By Limousine Bus: Take bus no. 6101 and get off at Korea

University or Sungrye Elementary School stop (15-minute walk to Hana Square)

From Seoul Station

By Taxi: About 20 minutes

By Subway: About 25 minutes. Take Line 1, transfer to Line 6 at Dongmyo Station, and exit at Anam Station

Reception Venue - The Korea House

10, Toegye-ro 36gil, Jung-gu, Seoul, 04626, Korea



Homepage: <https://www.koreahouse.or.kr/en/main>

By Subway: Line 3, 4. Chungmuro Station. Exit 3

By Bus: Blue line 104, 105, 140, 263, 421, 507, 604
Green line 7011

Banquet Venue – Faculty House, Korea University

Wi-Fi Access

Free Wi-Fi is available at most areas in Hana Square

Network: PG2019

Password: a123456789*

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