

PACIFIC GRAPHICS 2019 SCHEDULE

KOREA UNIVERSITY - SEOUL, OCTOBER 14-17, 2019

● keynote ● regular session ● work-in-progress

[Day 1] Monday October 14th, 2019	
09:00 - 11:00	Registration
11:00 - 11:10	Welcome Session
11:10 - 12:30	Color and Image
12:30 - 14:00	Lunch
14:00 - 15:20	Natural Phenomena
	WIP (Light, Depth, and Simulation)
15:20 - 15:40	Coffee break
15:40 - 17:20	Lines and Sketches
	Geometric Modeling

Color and Image

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

Natural Phenomena

Procedural Riverscapes Adrien Peytavie, Thibault Dupont, Eric Guerin, Yann Cortial, Bedrich Benes, James Gain, Eric Galin
 Desertscape Simulation Axel Paris, Adrien Peytavie, Eric Guerin, Oscar Argudo, Eric Galin
 Parallel Generation and Visualization of Bacterial Genome Structures Tobias Klein, Peter Mindek, Ludovic Autin, David Goodsell, Arthur Olson, Eduard Gröller, Ivan Viola
 Visualizing Plant Growth Using Graph-Based Point Cloud Segmentation and Optimal Transport Tim Golla, Tom Kneiphof, Lasse Klingbeil, Heiner Kuhlmann, Michael Weinmann, Reinhard Klein

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

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, Jeehee Lee

Lines and Sketches

RegionSketch: Interactive and Rapid Creation of 3D Models with Rich Details Shuai Liu, Fei Hou, Aimin Hao, Hong QIN
 Sketch-based 3D Modeling and Manipulation through Joint Embedding of Shapes and Contours Aobo Jin, Qiang Fu, Zhigang Deng
 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 Yan Dingkun, Yun Sheng, Xiaoyang Mao

Geometric Modeling

Active Scene Understanding via Online Semantic Reconstruction Lei Chu, Pengbo Bo, Yang Liu, Wang wenping
 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
 Active Scene Understanding via Online Semantic Reconstruction Lintao Zheng, Chenyang Zhu, Jiazhao Zhang, Hang Zhao, Hui Huang, Matthias Niessner, Kai Xu
 Connectivity-preserving Smooth Surface Filling with Sharp Features Thibault Lescoat, Pooran Memari, Jean-Marc Thiery, Maks Ovsjanikov, Tamy Boubekeur

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[Day 2] Tuesday October 15th, 2019		
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	
14:00 - 15:00	Keynote : <i>The Science to Create the Magic</i> - Markus Gross	
15:00 - 15:20	Coffee break	
15:20 - 16:40	Voxels and Polycubes	WIP (Browsing and Learning)
16:40 - 17:00	Coffee break	
17:00 - 18:20	Multi-View and VR	Generative Models

Image Processing

Scale-adaptive Structure-Preserving Texture Filtering Chengfang Song, Chunxia Xiao, LING LEI
 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

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 Szmolyan, Artem Amirkhanov, Gabriel Mistelbauer, Eduard Gröller, Renata Georgia Raidou
 Inertia-based Fast Vectorization of Line Drawings Patryk Najgebauer, Rafal Scherer

Animation

Generating 3D faces using multi-column graph convolutional network 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

Dual Illumination Estimation for Robust Exposure Correction Qing Zhang, Yongwei Nie, Wei-Shi Zheng
 Specular Highlight Removal in the Wild Gang Fu, Qing Zhang, 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

Voxels and Polycubes

Practical Foldover-Free Volumetric Mapping Construction Jian-Ping Su, Xiao-Ming Fu, Ligang Liu
 Computing Bijective PolyCube-Maps by Constrained Voxelization Yang Yang, Xiao-Ming Fu, Ligang Liu
 Polycube Shape Space Hui Zhao, Xuan Li, Wencheng Wang, Na Lei, Xiaoling Wang, Shaodong Wang, Xianfeng Gu
 Compacting Voxelized Polyhedra via Tree Stacking Yue Hao, Jyh-Ming Lien

Work-in-progress (Browsing and Learning)

Interactive and Automatic Navigation for 360 Video Playback Kyoungkook Kang, Cho, Sunghyun
 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

Multi-View and VR

Pyramid Multi-View Stereo with Local Consistency Jie Liao, Yanping Fu, Qingan Yan, Chunxia Xiao
Automatic modeling of cluttered floorplans from panoramic images Giovanni Pintore, Fabio Ganovelli, Alberto Jaspe Villanueva, Enrico Gobbetti
Efficient 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 Lintao Zheng, Yan Zhang, Zhixin Sun, Kai Xu

Generative Models

Interactive Design of 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 Image Steganography via 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

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[Day 3] Wednesday October 16th, 2019		
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	Global Illumination
12:30 - 14:00	Lunch	
14:00 - 15:00	Keynote : <i>Virtual Cyborg: Beyond Human Limits</i> - Masahiko Inami	
15:00 - 15:20	Coffee break	
15:20 - 16:40	Image Based Rendering	Electric Theater
16:40 - 17:00	Coffee break	
17:00 - 18:20	Shape Analysis	

Rendering and Sampling

Visibility-Aware Progressive Farthest Point Sampling on the GPU Sascha Brandt, Claudius Jähn, 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

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, Jinghui 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

Mechanics-Aware Modeling of Cloth Appearance Zahra Montazeri, Chang Xiao, Yun (Raymond) Fei, Changxi Zheng, and 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 Guzman, Valentin Vervondel, Francois Dagenais, David Mould, Eric Paquette
 A Rigging-Skinning Scheme to Control Fluid Simulation Jia-Ming Lu, Xiaosong Chen, Xiao Yan, Chenfeng Li, Ming Lin, Shi-Min Hu

Global Illumination

High Dynamic Range Point Clouds for Real-Time Relighting Manuele Sabbadin, Gianpaolo Palma, Francesco Banterle, Tamy Boubekeur, Paolo Cignoni
 Spherical Gaussian-based Lightcuts for Glossy Interreflections Huo Yuchi, Shihao Jin, Rui Wang, Hujun Bao
 Offline Deep Importance Sampling for Monte Carlo Path Tracing Steve Bako, 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

Image Based Rendering

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 in Respect to a Hidden Reference Image Mojtaba Bermana, Joachim Keiner, Karol Myszkowski, Michel Bätz, Matthias Ziegler, Hans-Peter Seidel, Tobias Ritschel

Shape Analysis

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

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[Day 4] Thursday October 17th, 2019	
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	Rendering and Lighting Surfaces
12:30 - 14:00	Lunch
14:00 - 15:00	Keynote : Perception Driven Computational Shape Design - Alla Sheffer
15:00 - 15:20	Coffee break
15:20 - 16:40	Modeling Interfaces
16:40 - 17:00	Coffee break

Image and Video Editing

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, Chunxia Xiao
 ShutterApp: Spatio-temporal Exposure Control for Videos Nestor Salamon, Markus Billeter, Elmar Eisemann

Surface and Texture

Texture optimization using a task-specific visibility metric Krzysztof Wolski, Daniele Giunchi, Kinuwaki Shinichi, Piotr Didyk, Karol Myszkowski, Anthony Steed, Rafal Mantiuk
 Global Texture Mapping for Dynamic Objects Jungeon Kim, Hyomin Kim, Jaesik Park, Seungyong Lee
 Discrete Calabi Flow: A Unified Conformal Parameterization Method Su kehua, Chenchen Li, Yuming Zhou, Xu Xu, Stony University
 Reliable Rolling-guided Point Normal Filtering for Surface Texture Removal Yangxing Sun, Honghua Chen, Jing Qin, Hongwei Li, Mingqiang Wei, Hua Zong

Rendering and Lighting

Material Aware Deep Surface Light Fields Guli Zhang, chen anpei, Zhang chen, ling xie, Yu Ji, Jingyi yu
 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 Uniform SVBRDF Material Modeling Method Based on Discrete Microsurface Junqiu Zhu, Yanning Xu, Lu Wang

Surfaces

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
 Non-uniform subdivision surfaces with sharp features Yufeng Tian, Xin Li, Falai Chen
 Anisotropic Surface Remeshing without Obtuse Angles Qunce Xu, Dongming Yan, Wenbin Li, Yongliang Yang

Modeling Interfaces

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
 A Scalable Method for Learning Style Compatibility Between Objects in a Real-World 3D Asset Database Yifan Liu, Ruolan Tang, Daniel Ritchie