

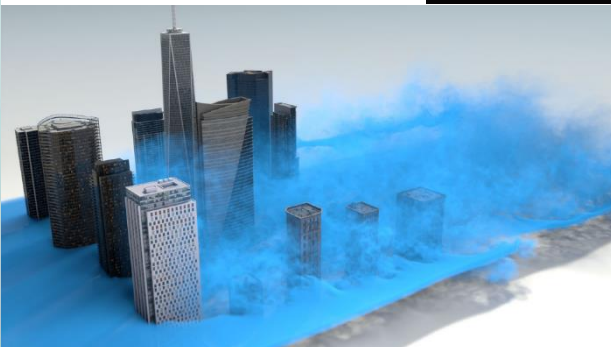
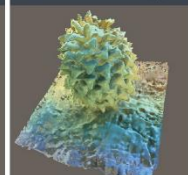
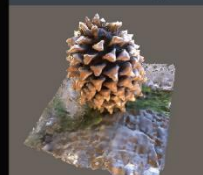
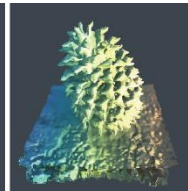
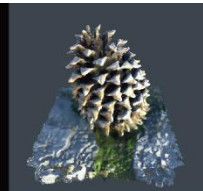


ASIAGRAPHICS

Asian Association for Computer Graphics
and Interactive Technology

Newsletter

Issue 4, March 2022



www.asiagraphics.org

AG Webinar Session 8 (Coming soon...)

Date: Tuesday, March 29, 2022

Time: 11:00am UTC/GMT | 07:00pm (Beijing, Singapore) | 08:00pm (Seoul, Tokyo)

Chair: Xianzhi Li, Huazhong University of Science and Technology, China

Talk 1

Title: Shape-inspired architectural design

Speaker: Prof. Pedro Sander, The Hong Kong University of Science and Technology, China.

Abstract:

Various techniques have been proposed to improve the level of automation in stages of architectural design. In this talk I will present our work on an interactive interface, along with optimization algorithms focused on designing early stage symbolic architecture. The architect specifies some simple shape requirements by inputting a few binary images that resemble the shape of the building from different viewpoints. Our optimizer uses these to generate a conceptual 3D design that is guided by various aesthetic and structural requirements. I will also discuss our approach for planning the inner space of the given architecture model. The architect specifies idealized requirements on the key functional rooms by using instances of simple 3D primitive shapes. The pose and location of each instance are parameters of the optimization. By coupling this process together with the shape inspired exterior design process, we can construct good initial conceptual designs. Several examples are presented to illustrate the methodology of these approaches and results. User studies based on a proposed dataset and interviews with domain experts have been carried out to demonstrate the usability and effectiveness of our system and algorithms.



AG Webinar Session 8 (Coming soon...)

Talk 2

Title: Synthesizing dynamic human appearance

Speaker: Dr. Tuanfeng Y. Wang,
Adobe Research

Abstract:

Synthesizing the dynamic appearances of humans in motion plays a central role in applications such as AR/VR and video editing. While many recent methods have been proposed to tackle this problem, handling loose garments with complex textures and high dynamic motion still remains challenging. In this talk, I will introduce a video-based appearance synthesis method that tackles such challenges and demonstrates high-quality results for in-the-wild videos that have not been shown before. Another key challenge of learning the dynamics of the appearance lies in the requirement of a prohibitively large amount of observations. I will show how we address this issue with a compact motion representation by enforcing equivariance. Such a representation is learned from the spatial and temporal derivatives of the 3D body surface and can be used to render high fidelity time-varying appearance.



AG Webinar Session 7

Date: Tuesday, February 22, 2022

Time: 11:00am UTC/GMT | 07:00pm (Beijing, Singapore) | 08:00pm (Seoul, Tokyo)

Chair: Yuki Koyama, National Institute of Advanced Industrial Science and Technology (AIST), Japan

Talk 1

Title: Neural Indoor Scene Rendering with Reflections

Speaker: Prof. Weiwei Xu
Zhejiang University, China

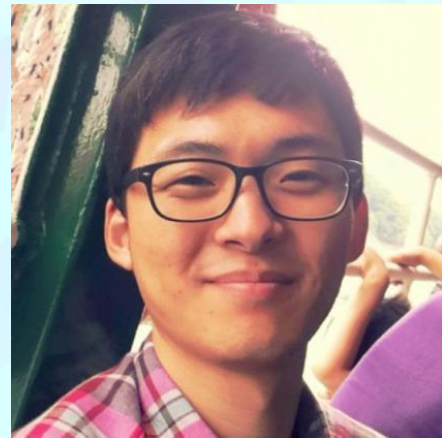
Abstract:

Neural rendering is able to produce images according to the encoded neural scene representations, a recently popular rendering scheme. Its advantage is its robustness to geometric noise and the ability to exploit priors learned in the training data. This talk describes a novel scalable neural rendering pipeline for indoor scenes with reflections. We make substantial progress towards three problems in indoor scene rendering, namely, depth and reflection reconstruction, view selection and temporally coherent rendering with various reflections. The Rendering quality outperforms state-of-the-art IBR or neural rendering algorithms considerably.



AG Webinar Session 7

Talk 2



Title: Discovering the Compositional Structure in 3D Shapes – From Supervised to Unsupervised Learning

Speaker: Prof. Minhyuk Sung, KAIST, South Korea

Abstract:

3D data matching the actual form of a physical object enables a direct representation of the compositional structure of the object, which is essential in many applications in graphics, vision, and robotics such as 3D modeling/editing, object detection, and robot interactions. However, discovering the compositional structure from raw 3D data is challenging since it requires huge supervision in learning, and even the supervision needs to be carefully applied when it is given.

In this talk, I will introduce three learning-based methods of discovering the compositional structure of shapes. I will first discuss a supervised neural network detecting geometric primitives from a point cloud. Even when supervision is given, a direct regression of the primitive parameters does not provide better results than an unsupervised estimation. I will explain how the prediction power of neural networks can make the best synergy with estimation in a carefully designed end-to-end learning network. Second, I will introduce a self-supervised method of learning the compositional structure from deformation. I will propose a conditional generative model producing possible deformations of a shape and show how the compositional structure can emerge from learning the disentanglement of possible shape variations. Lastly, I'll introduce another self-supervised method of learning semantic part decomposition from language descriptions. I'll discuss how an attention model finding a shape matching a query sentence can be designed to discover semantic parts while learning attention.

AG Webinar Session 6

Date: Tuesday, January 18, 2022

Time: 11:00am UTC/GMT | 07:00pm (Beijing, Singapore) | 08:00pm (Seoul, Tokyo)

Chair: Ying He, Nanyang Technological University, Singapore

Talk 1

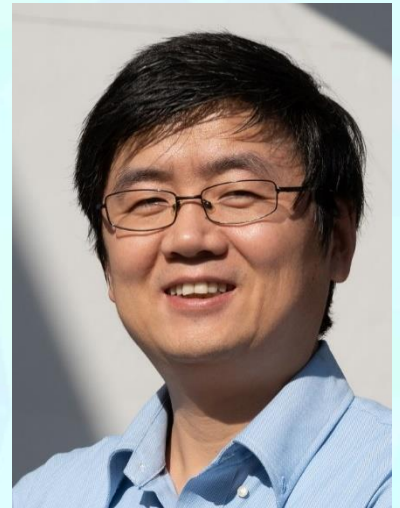
Title: Data-driven Sketch Interpretation

Speaker: Prof. Hongbo Fu,
City University of Hong Kong,
Hong Kong, China

Abstract:

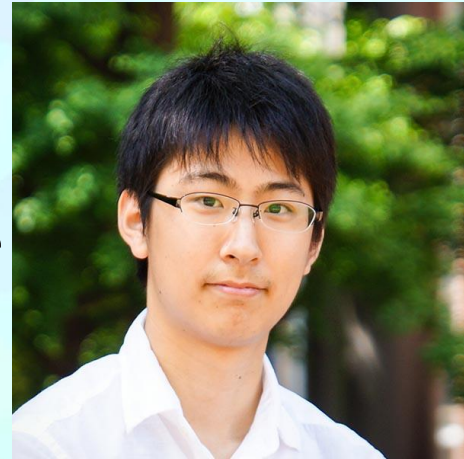
Freehand sketching provides an easy tool for communication between people.

While human viewers can easily interpret the semantics of a freehand sketch, it is often difficult to teach machines to understand sketches like we do, mainly because of different levels of abstraction, drawing styles, and various sources of drawing errors. In this talk, I will introduce how data-driven approaches can help us address various sketch understanding tasks, including sketch classification, sketch segmentation and labeling, 3D interpretation of freehand sketches, and sketch-based image generation.



AG Webinar Session 6

Talk 2



Title: Human-in-the-Loop Preferential Bayesian Optimization for Visual Design

Speaker: Dr. Yuki Koyama, National Institute of Advanced Industrial Science and Technology (AIST), Japan

Abstract:

Visual design often involves searching for an optimal parameter set that produces a subjectively preferable design. However, this optimization problem is not trivial to solve with typical optimization algorithms since the objective function is human preference and thus requires special treatment. In this talk, I will introduce preferential Bayesian optimization (PBO), a powerful technique to aid this task. PBO is a human-in-the-loop Bayesian optimization specializing in relative preference oracle (i.e., which option is liked the most). This method models the latent preference in a probabilistic manner and generates effective preference queries to human evaluators based on the preference model. Then, I will explain two of my recent works [SIGGRAPH 2017; SIGGRAPH 2020], which are built on PBO and achieve even better sample efficiency by combining with tailored user interactions.

Conference Programme: CVM 2022

Thursday, April 7, 2022

08:30 - 18:00 Registration

14:00 - 18:00 Tutorial: details will be released later

Day One

Friday, April 8, 2022

08:00 - 08:30 Registration

08:30 - 09:00 Opening

09:00 - 09:40 **Keynote talk I:** by Xin Tong from MSRA

Industrial Session

09:40 - 10:25 Three technical talks from industry

10:25 - 10:40 Coffee break

Session 1

Image Synthesis

10:40 - 10:55 **STATE: Learning Structure and Texture Representations for Novel View Synthesis**
Xinyi Jing, Qiao Feng, Yu-Kun Lai, Jinsong Zhang, Yuanqiang Yu, Kun Li

10:55 - 11:10 **A Comparative Study of CNN- and Transformer-based Neural Style Transfer**
Huapeng Wei, Yingying Deng, Fan Tang, Xingjia Pan, Weiming Dong

11:10 - 11:25 **StrokeGAN Painter: Learning to Paint Artworks Using Stroke-Style Generative Adversarial Networks**
Qian Wang, Cai Guo, Hong-Ning Dai, Ping Li

11:25 - 11:40 **Unsupervised Image Translation with Distributional Semantics Awareness**
Zhexi Peng, He Wang, Yanlin Weng, Yin Yang, Tianjia Shao

Session 2

Rendering

11:40 - 11:55 **A Psychoacoustic Quality Criterion for Path-Traced Sound Propagation**
Chunxiao Cao, Zili An, Zhong Ren, Dinesh Manocha, Kun Zhou

11:55 - 12:10 **Neural Temporal Denoising for Indirect Illumination**
Yan Zeng, Lu Wang, Yanning Xu, Xiangxu Meng

12:10 - 14:00 Lunch

Session 3

Geometry & Point Cloud

14:00 - 14:15 **Out-of-core Outlier Removal for Large-scale Indoor Point Clouds**
Linlin Ge, Jieqing Feng

14:15 - 14:30 **Towards Uniform Point Distribution in Feature-Preserving Point Cloud Filtering**
Shuanjun Chen, Jinxi Wang, Wei Pan, Shang Gao, Meili Wang, Xuequan Lu

14:30 - 14:45 **Jacobi-PIA Algorithm for Bi-Cubic B-Spline Interpolation Surfaces**
Chengzhi Liu, Juncheng Li, Lijuan Hu

Session 4

Image Processing

14:45 - 15:00 **Light Field Super-Resolution Using Complementary-View Feature Attention**
Wei Zhang, Wei Ke, Da Yang, Hao Sheng, Zhang Xiong

15:00 - 15:15 **Autocomplete Repetitive Stroking with Image Guidance**
Yilan Chen, Kin Chung Kwan, Hongbo Fu

15:15 - 15:30 **Polygonal Finite Element Based Content-Aware Image Warping**
Juan Cao, Xiaoyi Zhang, Jiannan Huang, Yongjie Jessica Zhang

15:30 - 15:45 Coffee break

<http://iccv.org/2022/program.htm>

Conference Programme: CVM 2022

Session 5	VR
15:45 - 16:00	ARSlice: Head-Mounted Display Augmented with Dynamic Tracking and Projection Yu-Ping Wang, Sen-Wei Xie, Lihui Wang, Hongjin Xu, Satoshi Tabata, Masatoshi Ishikawa
16:00 - 16:15	Adaptive Optimization Algorithm for Resetting Techniques in Obstacle-ridden Environments Song-Hai Zhang, Chia-Hao Chen, Zheng Fu, Yongliang Yang, Shi-Min Hu
Session 6	Shape Analysis
16:15 - 16:30	Learning-based Intrinsic Reflectional Symmetry Detection Yi-Ling Qiao, Gao Lin, Shu-Zhi Liu, Ligang Liu, Yu-Kun Lai, Xilin Chen
16:30 - 16:45	Deep Functional Maps for Simultaneously Computing Direct and Symmetric Correspondences of 3D Shapes Hui Wang, Bitao Ma, Junjie Cao, Xiuping Liu, Hui Huang
16:45 - 17:00	TAD-Net: tooth axis detection network based on rotation transformation encoding Yeying Fan, Qian Ma, Guangshun Wei, Zhiming Cui, Yuanfeng Zhou, Wenping Wang
Poster Session	
17:00 - 18:00	Fuzzy-based Indoor Scene Modeling with Differentiated Examples Qiang Fu, Shuhan He, Zhigang Deng, Xueming Li, Hongbo Fu
	Deep Unfolding Multi-scale Regularizer Network for Image Denoising Jingzhao Xu, Mengke Yuan, Dongming Yan, Tieru Wu
	High-Quality Unsupervised Image Denoising via Multi-Scale Deep Image Prior Qing Zhang, Yongwei Nie, Lei Zhu, Wei-Shi Zheng
	Shape Embedding and Retrieval in Multi-Flow Deformation Baiqiang Leng, Jingwei Huang, Guanlin Shen, Bin Wang
	Deep Multi-Task Learning based Fingertip Detection Ruize Han, Jiewen Zhao, Liang Wan
	Shape-aware Stroke Segmentation for Calligraphic Characters Zibo Zhang, Xueting Liu, Chengze Li, Huisi Wu, Zhenkun Wen
	Attribute Consistency Guided Generative Adversarial Networks for Unsupervised Image-to-Image Translation Fengjiang Liu, Li Yao
	Point Cloud Completion on Structured Feature Map with Feedback Network Zejia Su, Haibin Huang, Chongyang Ma, Hui Huang, Ruizhen Hu
	Multi-foreground objects segmentation based on RGB-D Image Yan Li, Di Zhu, Hui Chen, Haikun Li, Changhe Tu
	Adaptive Content-aware Correction for Wide-angle Portrait Photos Juan Cao, Binyan Lin, Zhonggui Chen
18:00 - 20:00	TransLoc3D: point cloud based large-scale place recognition using adaptive receptive fields Tian-Xing Xu, Yuan-Chen Guo, Yu-Kun Lai, Song-Hai Zhang
	Sphere Face Model:A 3D Morphable Model with Hypersphere Manifold Latent Space Diqiong Jiang, Yiwei Jin, Fang-Lue Zhang, Yun Zhang, Zhe Zhu, Ruofeng Tong, Min Tang
18:00 - 20:00	Conference Banquet

Conference Programme: CVM 2022

Day Two	Saturday, April 9, 2022
09:00 - 09:40	Keynote talk II: by Jun-Yan Zhu from CMU
Session 7	Attention
09:40 - 09:55	Attention Mechanisms in Computer Vision: A Survey Meng-Hao Guo, Tian-Xing Xu, Jiang-Jiang Liu, Zheng-Ning Liu, Peng-Tao Jiang, Tai-Jiang Mu, Song-Hai Zhang, Ralph Martin, Ming-Ming Cheng, Shi-Min Hu
09:55 - 10:10	Self-supervised Coarse-to-fine Monocular Depth Estimation Using Lightweight Attention Module Yuanzhen Li, Fei Luo, Chunxia Xiao
10:10 - 10:25	Attention-based Dual Supervised Decoder for RGBD Semantic Segmentation Yang Zhang, Yang Yang, Chenyun Xiong, Guodong Sun, Yanwen Guo
10:25 - 10:40	Coffee break
Session 8	Meshes & 3D printing
10:40 - 10:55	Patch-based mesh inpainting via low rank recovery Xiaoqun Wu, Xiaoyun Lin, Nan Li, Haisheng Li
10:55 - 11:10	Untangling All-Hex Meshes via Adaptive Boundary Optimization Qing Huang, Wen-Xiang Zhang, Qi Wang, Ligang Liu, Xiao-Ming Fu
11:10 - 11:25	3D Printed Hair Modeling from Strand-level Hairstyles Han Chen, Minghai Chen, Lin Lu
Session 9	Understanding
11:25 - 11:40	Element-Arrangement Context Network for Facade Parsing Yan Tao, Yiteng Zhang, Xuejin Chen
11:40 - 11:55	Probability-based channel pruning for depthwise separable convolutional networks Hanli Zhao, Kaijie Shi, Xiaogang Jin, Mingliang Xu, Hui Huang, Wanglong Lu, Ying Liu
11:55 - 12:10	Learn Robust Pedestrian Representation within Minimal Modality Discrepancy for Visible-Infrared Person Re-Identification Yujie Liu, Wenbin Shao, Xiaorui Sun
12:10 - 14:00	Lunch
14:00 - 14:45	Keynote talk III: by Yuki Koyama from AIST
Session 10	Face
14:45 - 15:00	3D-CariGAN: An End-to-End Solution to 3D Caricature Generation from Normal Face Photos Zipeng Ye, Mengfei Xia, Yanan Sun, Ran Yi, Minjing Yu, Juyong Zhang, Yu-Kun Lai, Yong-Jin Liu
15:00 - 15:15	Towards Harmonized Regional Style Transfer and Manipulation for Facial Images Cong Wang, Fan Tang, Yong Zhang, Weiming Dong, Tieru Wu
15:15 - 15:30	Learning Physically-based Material and Lighting Decompositions for Face Editing Qian Zhang, Vikas Thamizharasan, James Tompkin
15:30 - 15:45	Coffee break

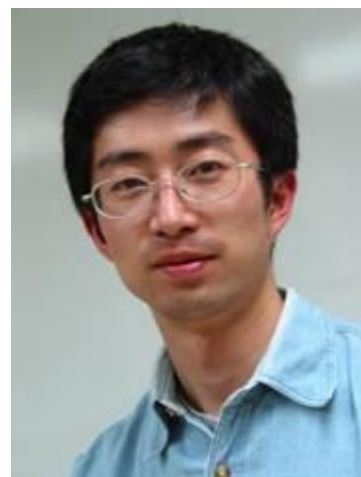
Conference Programme: CVM 2022

Session 11	Simulation & Visualization
15:45 - 16:00	Simulating Fractures with Bonded Discrete Element Method Jia-Ming Lu, Chenfeng Li, Geng-Chen Cao, Shi-Min Hu
16:00 - 16:15	O3NJ Trees: Optimally Ordered Orthogonal Neighbor Joining Trees for Hierarchical Cluster Analysis Tong Ge, Yunhai Wang, Michael Sedlmair, Zhanglin Cheng, Ying Zhao, Xin Liu, Baoquan Chen, Oliver Deussen
Session 12	Tracking & SLAM
16:15 - 16:30	Local Homography Estimation on User-specified Textureless Regions Zheng Chen, Xiaonan Fang, Songhai Zhang
16:30 - 16:45	CGTracker: Center Graph Network for One-Stage Multi-Object Detection and Tracking Xin Feng, Haoming Wu, Yihao Yin, Yongbo Li, Libin Lan
16:45 - 17:00	ObjectFusion: Accurate Object-level SLAM with Neural Object Priors Zi-Xin Zou, Shi-Sheng Huang, Tai-Jiang Mu, Yu-Ping Wang
17:00 - 17:30	Closing Session

Keynote Speakers:

Xin Tong, Microsoft Research Asia

Xin Tong is a principal researcher in Internet Graphics Group of Microsoft Research Asia. He obtained his Ph.D. degree in Computer Graphics from Tsinghua University in 1999. His Ph.D. thesis is about hardware assisted volume rendering. He got my B.S. Degree and Master Degree in Computer Science from Zhejiang University in 1993 and 1996 respectively. His research interests include appearance modeling and rendering, texture synthesis, and image based modeling and rendering. Specifically, His research concentrates on studying the underline principles of material light interaction and light transport, and developing efficient methods for appearance modeling and rendering. He is also interested in performance capturing and facial animation.



Conference Programme: CVM 2022

Jun-Yan Zhu, Carnegie Mellon University

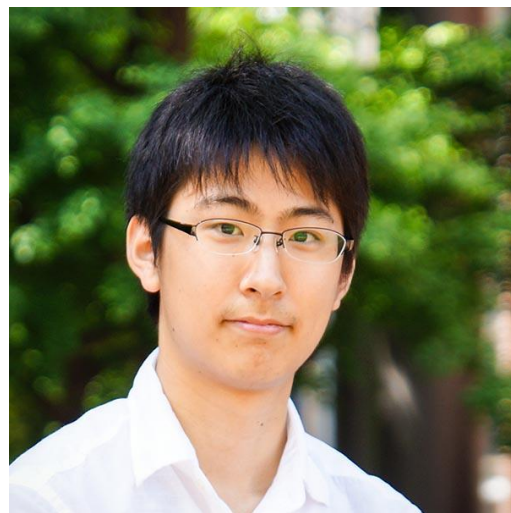
Jun-Yan Zhu is an Assistant Professor with The Robotics Institute in the School of Computer Science of Carnegie Mellon University. He also holds affiliated faculty appointments in the Computer Science Department and Machine Learning Department. His research interests include



computer vision, computer graphics, machine learning, and computational photography. He won the ACM SIGGRAPH Outstanding Doctoral Dissertation Award in 2018 and was selected as the 100 Greatest Innovations of 2019 by Popular Science. He served as area chairs in many top conferences, such as CVPR 2020, CVPR 2021, NeurIPS 2021, etc.

Yuki Koyama, AIST

Dr. Yuki Koyama is a researcher at National Institute of Advanced Industrial Science and Technology (AIST). He received his Ph.D. from The University of Tokyo in 2017, advised by Prof. Takeo Igarashi. His research fields are computer graphics and human-computer interaction. In particular, he is interested in enhancing design activities by using computational techniques such as mathematical optimization. From 2021, he also started working at Graphinica (a Japanese animation studio), in which he is aiming at bridging art and technology in animation production. He was awarded JSPS Ikushi Prize (2017) and Asia Graphics Young Researcher Award (2021).



Call for Papers: Pacific Graphics Conference (PG 2022)

Submissions

We welcome original unpublished submissions in all areas of computer graphics and its applications. The topics include (but are not limited to) modeling, rendering, animation, imaging, visualization, human-computer interaction, and graphics systems. Papers should be submitted through the SRM system. Each submission should be 7-12 pages in length for the regular papers or 4-6 pages for the short papers, and will be reviewed by an international program committee for technical quality, novelty, significance, and clarity. All of the accepted papers will be archived in the EG digital libraries and all regular papers will be published in a special issue of Computer Graphics Forum.

In addition, the conference will also include poster and work-in-progress sessions. As a premier forum for exchanging recent research ideas and practical achievements – Pacific Graphics is of exceptional value for students, academics and industry researchers.

Important Dates

Regular Papers:

- submission due: **June 10, 2022**
- review to authors: **July 18, 2022**
- decision notification: **July 29, 2022**
- revision submission due: **August 17, 2022**
- final acceptance notification: **August 24, 2022**

Short Papers, Work-In-Progress Papers, and Posters:

- submission due: **July 15, 2022**
- decision notification: **August 18, 2022**

Contact Us: info@pg2022.org



ぐば
らし
ふふ
いい
つつ
くく
す。

PACIFIC GRAPHICS
OCT.5TH-8TH, 2022
KYOTO, JAPAN



THE 30TH ANNUAL INTERNATIONAL CONFERENCE ON COMPUTER GRAPHICS AND APPLICATIONS, PACIFIC GRAPHICS 2022, WILL TAKE PLACE AT KYOTO INTERNATIONAL CONFERENCE CENTER, KYOTO, JAPAN ON OCTOBER 5TH-8TH, 2022. PACIFIC GRAPHICS IS A FLAGSHIP CONFERENCE OF THE ASIAGRAPHICS ASSOCIATION. ALL ACCEPTED JOURNAL TRACK PAPERS WILL BE PUBLISHED IN A SPECIAL ISSUE OF COMPUTER GRAPHICS FORUM (CGF), THE JOURNAL OF THE EUROGRAPHICS ASSOCIATION, IN PRINT AND ONLINE IN 2022.

PACIFIC GRAPHICS 2022
<http://pg2022.org>
(OPEN FROM DEC.1ST, 2021)

IMPORTANT DATES (EXACT DATE WILL BE ANNOUNCED LATER.)
JOURNAL TRACK PAPER SUBMISSION: JUNE, 2022
SHORT PAPER AND POSTER SUBMISSION: AUGUST, 2022

CONTACT US: info@pg2022.org

> CONFERENCE LEADERSHIP
>> CONFERENCE CHAIRS
SHIGEO MORISHIMA, WASEDA UNIVERSITY
DEMETRI TERZOPOULOS, UCLA
HUBERT SHUM, DURHAM UNIVERSITY

>> PROGRAM CHAIRS
NOBUYUKI UMETANI, UNIVERSITY OF TOKYO
CHRIS WOJTAN, IST AUSTRIA
ETIENNE VOUGA, UT AUSTIN

SPONSORS



SUPPORTERS



Call for Papers: The Eurographics Symposium on Geometry Processing (SGP 2022)

The Eurographics Symposium on Geometry Processing (SGP) is the premier venue for disseminating new research ideas and cutting-edge results in digital geometry processing. In this research area, concepts from mathematics, computer science, and engineering are studied and applied to offer new insights and design efficient algorithms for acquisition, modeling, analysis, manipulation, simulation and other types of processing of 3D models and shape collections.

In 2022, SGP will be held from July 4th through 6th. To enable safe and broad participation regardless of developments, SGP will take place as an online event this year.

Continuing a successful tradition from previous years, SGP will also offer a Graduate School on July 2nd and 3rd, targeted at students and researchers new to the field. Courses will be taught by leading experts and complemented by interactive demonstrations to provide in-depth knowledge of recent and fundamental aspects of geometry processing.

We invite submissions related to, but not limited to, the following topics:

- Acquisition and reconstruction
- Analysis and fabrication for 3D printing
- Architectural geometry
- Discrete differential geometry
- Exploration of shape collections
- Geometry and topology representations
- Geometry compression
- Geometric deep learning
- Geometry processing applications

Call for Papers: The Eurographics Symposium on Geometry Processing (SGP 2022)

(cont'd...)

- Interactive techniques
- Meshing and remeshing
- Multiresolution modeling
- Multimodal shape processing
- Processing of massive geometric datasets
- Geometric representations for machine learning
- (Data-driven) Shape analysis and synthesis
- Simulation and animation
- Smoothing, filtering, and denoising
- Surface and volume parameterization and deformation

Paper Submissions: Submissions

via: https://srmv2.eg.org/COMFy/Conference/SGP_2022

Important Dates:

Paper submission: **April 11, 2022**

Notification: **May 30, 2022**

Revised version due: **June 10, 2022**

Camera ready version due: **June 20, 2022**

Graduate School: **July 2–3, 2022**

Conference: **July 4–6, 2022**

Call for Papers: TECHNICAL PAPERS of SIGGRAPH ASIA 2022

The SIGGRAPH Asia Technical Papers program is the premier international venue for disseminating and discussing new scholarly work in computer graphics and interactive techniques.

Paper Submissions: At SIGGRAPH Asia 2022, there are two ways to submit your paper to the Technical Papers program.

✓ JOURNAL PAPERS:

- Continuation of the same Technical Papers program from previous years
- Ideas are extensively tried and tested
- No maximum (or minimum) page length
- ACM Journal format
- Published in ACM Transactions on Graphics (TOG)

✓ CONFERENCE PAPERS:

- New program starting in 2022
- Exciting new ideas in a shorter format – papers that might be less polished but still have an impact
- Submissions are limited to 7 double column pages, excluding references. Appendices should only be included in supplementary material
- ACM Conference Proceedings paper format
- Published in SIGGRAPH Conference Proceedings

The review process, deadline and committee are the same for both Journal and Conference Papers. Also, starting in 2022, for the first time we will be giving out Best Technical Papers Awards.

SUBMISSIONS DEADLINE:

- **Submission Form Deadline: 19 May 2022, 23:59 AoE**
- **Paper Deadline: 20 May 2022, 23:59 AoE**
- **Upload Deadline: 21 May 2022, 23:59 AoE**



ASIAGRAPHICS

Asian Association for Computer Graphics
and Interactive Technology

Join **AG**
Membership
Now !

Website:

www.asiagraphics.org

Contact us at:

asiagraphics.ag@gmail.com