

ASIAGRAPHICS

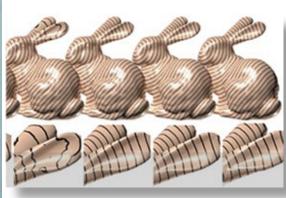
Asian Association for Computer Graphics and Interactive Technology

Newsletter

Issue 1, October 2021







www.asiagraphics.org



About Asiagraphics (AG)

About Asiagraphics

Asiagraphics (AG) is a professional organization of the Asian research community of computer graphics and interactive technology, with its membership open to people interested in computer graphics from all over the world. It is a non-profitable organization registered in Hong Kong. Its full name is *Asian Association for Computer Graphics and Interactive Technology*.

Mission

The missions of AG include:

- Providing of an ideal platform for communication and collaboration of computer graphics researchers of Asia.
- Organizing high quality professional activities in Asia.
- Enabling efficient coordination and exchanges of benefits with other associations of similar interests.
- Facilitating the advancement of computer graphics via dissemination of latest research results and recognition of researchers who have made outstanding contributions.

AG Officers and Organization

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2021 AG Awards

Life-Time Achievement Award

This award will be given every second year to an exceptionally distinguished scientist in the area of Computer Graphics. The awardee should be a renowned personality who has made significant scientific contributions over a long period of their scientific career and who has also been instrumental in promoting the field as a scientific discipline by creating international visibility through the organization of conferences or journals.

Outstanding Technical Contributions Award

This award is to recognize an individual for an outstanding technical achievement in computer graphics, made in an Asiagraphics country, and will be given at most one per year.

Young Researcher Award

This award is to recognize young researchers early on in their career (not longer than 6 years after obtaining the PhD degree), who have made a recently, notable contribution to the field of computer graphics and interactive techniques, in an Asiagraphics country, and will be given at most one per year.

Previous AG Awardees

Life-Time Achievement Awardees



(2017)
Tomoyuki Nishita
Univ. of Tokyo, Japan



(2019)
Sung Yong Shin
KAIST, Korea

Outstanding Technical Contributions Awardees



(2018)
Baining Guo
MSRA, China



(2019)
Hujun Bao
Zhejiang Univ., China



(2020) Takeo IgarashiUniv. of Tokyo, Japan

Young Researcher Awardees



(2018) Nobuyuki Umetani Univ. of Tokyo, Japan



(2019)
Ruizhen Hu
Shenzhen Univ., China



(2020) Lin Gao CAS, China

2021 Life Time Achievement Awardee



Qunsheng Peng

Professor Qunsheng Peng is a professor in the State Key Lab of CAD&CG, Zhejiang University. He has got involved in the study of computer graphics for 40 years. His research interests include realistic image synthesis, virtual reality, bio-molecule graphics and scientific visualization. He proposed a space indexing technique for fast ray tracing on Eurographis 1987 and extended the classic radiosity approach to non-diffuse surfaces on ACM SIGGRAPH 1988. He also jointly proposed a unified illumination model which received the best paper award of the journal of Computer & Graphics for the period of 1988-1989. In his career, he authored and coauthored more than five hundred journal and conference papers, including ACM SIGGRAPH, ACM VRST, ICCV, Eurographics, CGI, Pacific Graphics, etc. He published 6 books and translated 2 world classic text books. He is one of the founders of the State Key Lab of CAD &CG, Zhejiang University and the founder of Chinagraph conferences. As a professor, he directed more than 60 Ph.D students most of whom now become the leading professionals in their fields. As one pioneer of computer graphics in China, he also put great effort in promoting the international cooperations with CG colleagues in the world. Owing to his persistent contribution, he received both Chinagraph CG Achievements Award (2000) and Chinagraph CG Outstanding Contribution Award (2018).

2021 Outstanding Technical Contributions Awardee



Wenping Wang

Professor Wenping Wang has been conducting research in computer graphics, with emphasis on geometric modeling and computing, for over 30 years. He has made fundamental contributions in mesh generation, curve and surface fitting, architectural geometry, and collision detection.

Professor Wang has worked on a number of topics in geometric modeling and computing. His studies on centroidal Voronoi diagrams led to efficient algorithms for various applications in mesh generation and point sampling. He developed simple and efficient methods for fitting B-spline curves and surfaces to point cloud data. He contributed to several seminal works on architectural geometry in a series of SIGGRAPH papers. He was the first to introduce algebraic methods for fast and precise collision detection for ellipsoids, which are widely used for modeling granular materials in simulation or as bounding volumes for collision detection in virtual reality. For his contributions to geometric modeling, Professor Wang received the John Gregory Memorial Award and was elected IEEE Fellow in 2017.

Professor Wang has greatly contributed to the computer graphics community with his professional services and leadership. He has served on the editorial board of eight journals and co-chaired over 20 conferences, including Geometric Modeling and Processing (GMP) 2000, Pacific Graphics 2012, SIAM Conference on Geometric and Physical Modeling 2013, SIGGRAPH Asia 2013, and Geometry Summit 2019. He has been Steering Committee Chair for the GMP conference and the Pacific Graphics conference. Professor Wang played a pivotal role in establishing the Asia Graphics (AG) Association and was elected Founding Chairman of AG from 2016 to 2020.

2021 Young Researcher Awardee



Yuki Koyama

Dr. Yuki Koyama obtained his Ph.D. degree in 2017 from the University of Tokyo. From April 2017, he has worked as a Researcher at the National Institute of Advanced Industrial Science and Technology (AIST), Japan. His research interests are at the intersection of computer graphics and human-computer interaction (HCI), with an emphasis on applying computational techniques to various design problems.

One of his most important contributions is the development of human-in-the-loop Bayesian optimization (BO) techniques and the application to parametric design problems in computer graphics. BO has been a recent hot topic in the machine learning community as a general method of sample-efficient black-box optimization. His research extends BO in an original way for human-in-the-loop settings to apply it to visual design problems, where designers need to determine which design is subjectively preferred. This work was published at SIGGRAPH 2017, and he later named this powerful approach as preferential Bayesian optimization (PBO) and is actively exploring its unrevealed potential from various viewpoints. For instance, he already proposed a novel variant of PBO at SIGGRAPH 2020, where a tailored user interface is effectively combined with PBO to make the optimization even more efficient.

He has also made considerable contributions to human-in-the-loop optimization other than BO. For instance, his co-authored paper published at SIGGRAPH 2020 proposed differential subspace search, a human-in-the-loop optimization algorithm to efficiently explore the high-dimensional latent space of deep generative models; this paper provides a general approach to the grand challenge of providing means of searching the latent space for the desired expression. Besides, the interactive design systems he developed (e.g., the ones published at SIGGRAPH 2014, UIST 2014, CHI 2016, and CHI 2018) involve interactive optimization in creative ways to enhance designers' interactive experiences.

He has also worked on design problems on personal fabrication. He worked on computational design of 3D-printable functional objects and published a paper at SIGGRAPH Asia 2015, which has been cited by both computer graphics and HCI papers, indicating its interdisciplinary impact. He also has computational fabrication papers at SIGGRAPH 2014 and CHI 2021.



AG Web Seminars (Webinars)

AG Webinars Launched

AG launched a new format of online monthly seminars (AG webinars), started from August, 2021. Three sessions had been successfully organized currently.

Mission

The AG webinar (held monthly) aims to showcase exciting research results, inspire and motivate new research, and create a regular recurring opportunity for the Asiagraphics community to meet and exchange ideas.

Format

In each AG webinar we will have 1.5 hours live session with 1-2 talks followed by Q&A, which will be held on Tuesday evening (Asian time) near the end of the month. Audiences can watch the live talks and propose questions on Youtube or Huya during and right after the talks. Then the session chair will help paraphrase the questions to the speakers.

Copyright

All AG webinar talks will be recorded and made available on both Youtube and Bilibili (see links at the end of this page). The recorded videos are owned by the corresponding speakers and can only be used for studying and teaching purposes (i.e., non-commercial purposes).

http://www.asiagraphics.org/webinar

AG Webinar Speakers

AG Webinar Session 1 (August 30, 2021) Chair: Ligang Liu, University of Science and Technology of China



Wenping Wang Texas A&M University, USA



Nobuyuki Umetani The University of Tokyo, Japan

AG Webinar Session 2 (September 28, 2021) Chair: Hongbo Fu, City University of Hong Kong, China



Daniel Cohen-Or



Lin Gao Tel Aviv University, Israel Chinese Academy of Sciences, China

AG Webinar Session 3 (October 26, 2021) Chair: Nobuyuki Umetani, The University of Tokyo, Japan



Takeo Igarashi The University of Tokyo, Japan



Ruizhen Hu Shenzhen University, China

http://www.asiagraphics.org/webinar



Computational Visual Media Conference (CVM 2021)

The 9th international conference on Computational Visual Media (CVM 2021) was held on Apr 21 to Apr 23, 2021, in Qingdao, China. This conference is organized by Shandong University and Shandong Technology & Business University.

The Computational Visual Media (CVM) conference series is intended to provide a major international forum for exchanging novel research ideas and significant practical results both underpinning and applying Visual Media. The CVM 2021 conference received a great deal of attention as evidenced by the record number of 179 complete submissions. Among these submissions, 41 have been accepted as oral papers.

CVM 2021 adopted a combination of online and offline because of the epidemic. More than 250 participants attended the conference in Qingdao, and more than 1000 people watched BiliBili's live broadcast online.

The program of this conference included 3 keynote speeches, 41 conference paper presentations in 13 sessions, 3 special forums and 1 poster session. The keynote speakers are Dani Lischinski from The Hebrew University of Jerusalem, Lingqi Yan from University of California, Santa Barbara, and Lin Gao from Chinese Academy of Sciences.

The 9th International Conference on Computational Visual Media (CVM2021)



(By Lin Lu, CVM 2021 Organizing Co-Chair, Shandong University, China)

Geometric Modeling and Processing Conference (GMP 2021)

The 15h International Conference on Geometric Modeling and Processing (GMP 2021), was held online on May 12, 2021, organized by the University of West Bohemia in Czech Republic. GMP is a part of an annual international conference series on geometric modeling, simulation, and computing. The main goal of GMP is bringing together researchers working on mathematical, computational and applied aspects of geometric modeling and processing.

As trends and methodologies in geometry continue to evolve, GMP continues to provide a premier venue for sharing work that advances cutting-edge, creative and rigorous techniques for geometric modeling and processing. The GMP 2021 conference received 48 complete submissions, among which, 17 submissions have been accepted and published in a special issue of Computer-Aided Geometric Design (CAGD, Elsevier), while 5 submissions have been forwarded to the CAGD journal for a fast track review.

Due to the global pandemic, GMP 2021 was organized as a teleconference. The program of this conference included a keynote speech, 17 conference paper presentations and 2 journal paper presentations in 5 sessions. The keynote speaker is Annalisa Buffa from Swiss Federal Institute of Technology Lausanne (EPFL).



(By Renjie Chen, GMP2021 Program Co-Chair, University of Science and Technology of China, China)

http://www.kma.zcu.cz/gmp2021

Pacific Graphics 2020+2021 Conference (PG 20+21)

The 28th and 29th Pacific Conference on Computer Graphics and Applications (Pacific Graphics 20+21) were jointly hosted in Wellington, New Zealand from October 18 to 21, 2021. Pacific Graphics is an annual flagship conference of the Asia Graphics Association. As a highly successful conference series, Pacific Graphics provides a premium forum for researchers, developers, and practitioners from around the world in computer graphics and related areas.

For the first time, Pacific Graphics was held in a fully online format in 2021 due to the world-wide travel restrictions during the COVID-19 pandemic. It was also the first time that Pacific Graphics came to the Southern Hemisphere and New Zealand. Hosted by Victoria University of Wellington, the conference accommodated 115 international speakers and attracted 272 attendees in the online conference program.

There were 28 presentation sessions, including 3 keynote speeches from internationally renowned speakers in computer graphics, 20 technical paper presentation sessions and 5 feature sessions. All presentations and Q&A were in Zoom Webinar to ensure all the presenters and audience have a familiar presentation and Q&A interface. Gather.town was used to provide a virtual conference space that allowed attendees to interact and engage with each other while keeping themselves and those around them safe.

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Pacific Graphics 2020+2021 Conference (PG 20+21)

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The technical program was the largest one in Pacific Graphics' history, which presented 93 original research works in the 20 technical paper sessions. There were 15 journal paper presentation sessions to accommodate PG2020 full papers, PG2021 full papers and several invited TVCG papers, and 5 conference track paper sessions for PG2020 and PG2021 short papers, work-in-progress papers and posters. During these presentations, students, academic and industrial researchers engaged and exchanged their recent research ideas in computer graphics and relevant fields.

The 5 feature sessions invited 19 international speakers from the fields of design, arts, computer games and film industry to present their opinions and experiences in the relationship between computer graphics and other fields, the future of computer graphics and the local achievements in New Zealand.

In the closing ceremony of PG20+21, Prof. Shi-Min Hu also announced the Life-time Achievement award 2021, Outstanding Technical Contribution award 2020 and 2021 of Asia Graphics Association.



(By Fang-Lue Zhang, PG2020 & PG2021 Program Co-Chair, Victoria University of Wellington, New Zealand)

https://www.pg2021.org

2022 AG Conferences

CVM 2022

Computational Visual Media Conference April 7-9, 2022

Tsinghua University, Beijing, China

CVM 2022

Date: April 7-9, 2022

Venue: Tsinghua University, Beijing, China

Submission due: October 22, 2021

Website: http://iccvm.org/2022



GMP 2022

Date: May 11-13, 2022

Venue: OIST, Okinawa, Japan

Submission due: Middle of December, 2021

Website: https://groups.oist.jp/mmmu/gmp2022

PG 2022

- PG 2022 will be held at Waseda University, Tokyo, Japan.
- More details about PG 2022 will be available soon.





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www.asiagraphics.org

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