COMP 5460 -Computer Graphics I
Assignment - Journal Finder

Submitted By

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01696950

<u>Source : ACM *Transactions on Graphics* (TOG)</u>

1. <u>Refinement methods for geometric bounds in constructive solid geometry.</u>

BibTex :

@article{Cameron:1992:RMG:102377.123764,
 author = {Cameron, Stephen and Yap, Chee-Keng},
 title = {Refinement Methods for Geometric Bounds in Constructive Solid Geometry},
 journal = {ACM Trans. Graph.},
 issue_date = {Jan. 1992},
 volume = {11},
 number = {1},
 month = jan,
 year = {1992},
 issn = {0730-0301},2
 pages = {12--39},
 numpages = {28},
 url = {http://doi.acm.org/10.1145/102377.123764},
 doi = {10.1145/102377.123764},
 acmid = {123764},
 publisher = {ACM},
 address = {New York, NY, USA},
 keywords = {Boolean algebra, collision detection, constructive solid geometry, interference detection, representation simplification, robotics, solid modeling},
}

ACM Ref :

Stephen Cameron and Chee-Keng Yap. 1992. Refinement methods for geometric bounds in constructive solid geometry. ACM Trans. Graph. 11, 1 (January 1992), 12-39. DOI=*http://dx.doi.org/10.1145/102377.123764*

2.   Improving the GJK Algorithm for Faster and More Reliable Distance Queries Between Convex Objects.

BibTex :

@article{Montanari:2017:IGA:3087678.3083724,
 author = {Montanari, Mattia and Petrinic, Nik and Barbieri, Ettore},
 title = {Improving the GJK Algorithm for Faster and More Reliable Distance Queries Between Convex Objects},
 journal = {ACM Trans. Graph.},
 issue_date = {June 2017},
 volume = {36},
 number = {3},
 month = jun,
 year = {2017},
 issn = {0730-0301},
 pages = {30:1--30:17},
 articleno = {30},
 numpages = {17},
 url = {http://doi.acm.org/10.1145/3083724},
 doi = {10.1145/3083724},
 acmid = {3083724},
 publisher = {ACM},
 address = {New York, NY, USA},
 keywords = {Distance measurement, Gilbert-Johnson-Keerthi algorithm, collision detection},
}

ACM Ref :

Mattia Montanari, Nik Petrinic, and Ettore Barbieri. 2017. Improving the GJK Algorithm for Faster and More Reliable Distance Queries Between Convex Objects. ACM Trans. Graph. 36, 3, Article 30 (June 2017), 17 pages. DOI: *https://doi.org/10.1145/3083724*

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<u>Source : IEEE *Transactions on Visualization and Computer Graphics* (TVCG)</u>

<u>1. Real-Time Radiometric Compensation for Optical See-Through Head-Mounted Displays</u>

BibTex :

```
@ARTICLE{7523376,
author={T. Langlotz and M. Cook and H. Regenbrecht},
journal={IEEE Transactions on Visualization and Computer Graphics},
title={Real-Time Radiometric Compensation for Optical See-Through Head-Mounted Displays},
year={2016},
volume={22},
number={11},
pages={2385-2394},
keywords={augmented reality;helmet mounted displays;image colour analysis;radiometry;augmented reality scenario;color problem;color-blending;color-blind people;consumer-oriented market;digital information;diminished reality;optical combiner blending;optical see-through head-mounted displays;overlaid digital information;perceived pixel colors;physical environment;pixel-accuracy;real-time radiometric compensation;Adaptive optics;Cameras;Image color analysis;Optical imaging;Prototypes;Radiometry;Real-time systems;Radiosity;constant time;global illumination},
doi={10.1109/TVCG.2016.2593781},
ISSN={1077-2626},
month={Nov},}
```

Reference:

T. Langlotz, M. Cook and H. Regenbrecht, "Real-Time Radiometric Compensation for Optical See-Through Head-Mounted Displays," in *IEEE Transactions on Visualization and Computer Graphics*, vol. 22, no. 11, pp. 2385-2394, Nov. 2016.
doi: 10.1109/TVCG.2016.2593781

2. A Real-Time Augmented Reality System to See-Through Cars

BibTex :

Reference:

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Source :IEEE *Computer Graphics and Applications* (CG&A)

1. Visualizing Rugby Game Styles Using Self-Organizing Maps

BibTex :

Reference:
P. Lamb and H. Croft, "Visualizing Rugby Game Styles Using Self-Organizing Maps," in *IEEE Computer Graphics and Applications*, vol. 36, no. 6, pp. 11-15, Nov.-Dec. 2016. doi: 10.1109/MCG.2016.115

2. Design and Choice of Visual Display Solutions in the Training Domain

BibTex :

number={6},
pages={18-25},
keywords={computer based training;computer displays;human computer interaction;military computing;computer-based system architectures;human-system interaction;ill-matched visual display;military training system design;training domain;Games;Software;Systems architecture;Three-dimensional displays;Training;Visualization;computer graphics;computer-supported training system;defense applications;diffusion of innovation;military training;training objectives;visual display},
doi={10.1109/MCG.2016.112},
ISSN={0272-1716},
month={Nov},}

Reference:
A. Sadagic, "Design and Choice of Visual Display Solutions in the Training Domain," in *IEEE Computer Graphics and Applications*, vol. 36, no. 6, pp. 18-25, Nov.-Dec. 2016.
doi: 10.1109/MCG.2016.112

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Source :*ACM SIGGRAPH Computer Graphics (conference proceedings only, published as an ACM TOG issue)*

1. Reconfigurable interlocking furniture

BibTex :

@article{Song:2017:RIF:3130800.3130803,
 author = {Song, Peng and Fu, Chi-Wing and Jin, Yueming and Xu, Hongfei and Liu, Ligang and Heng, Pheng-Ann and Cohen-Or, Daniel},
 title = {Reconfigurable Interlocking Furniture},
 journal = {ACM Trans. Graph.},
 issue_date = {November 2017},
 volume = {36},

number = {6},
month = nov,
year = {2017},
issn = {0730-0301},
pages = {174:1--174:14},
articleno = {174},
numpages = {14},
url = {http://doi.acm.org/10.1145/3130800.3130803},
doi = {10.1145/3130800.3130803},
acmid = {3130803},
publisher = {ACM},
address = {New York, NY, USA},
keywords = {co-analysis, computational design, dissection, furniture assembly, joints, mechanical interlocking, reconfigurable},
}

Ref:

Peng Song, Chi-Wing Fu, Yueming Jin, Hongfei Xu, Ligang Liu, Pheng-Ann Heng, and Daniel Cohen-Or. 2017. Reconfigurable interlocking furniture. ACM Trans. Graph. 36, 6, Article 174 (November 2017), 14 pages. DOI: *https://doi.org/10.1145/3130800.3130803*

2. Video matting of complex scenes

BibTex :

@inproceedings{Chuang:2002:VMC:566570.566572,
author = {Chuang, Yung-Yu and Agarwala, Aseem and Curless, Brian and Salesin, David H. and Szeliski, Richard},
title = {Video Matting of Complex Scenes},
booktitle = {Proceedings of the 29th Annual Conference on Computer Graphics and Interactive Techniques},
series = {SIGGRAPH '02},
year = {2002},
isbn = {1-58113-521-1},
location = {San Antonio, Texas},
pages = {243--248},

```
 numpages = {6},
 url = {http://doi.acm.org/10.1145/566570.566572},
 doi = {10.1145/566570.566572},
 acmid = {566572},
 publisher = {ACM},
 address = {New York, NY, USA},
 keywords = {alpha channel, blue-screen matting, image-based rendering, layer
extraction, matting and compositing, video processing},
}

@article{Chuang:2002:VMC:566654.566572,
 author = {Chuang, Yung-Yu and Agarwala, Aseem and Curless, Brian and Salesin, David
H. and Szeliski, Richard},
 title = {Video Matting of Complex Scenes},
 journal = {ACM Trans. Graph.},
 issue_date = {July 2002},
 volume = {21},
 number = {3},
 month = jul,
 year = {2002},
 issn = {0730-0301},
 pages = {243--248},
 numpages = {6},
 url = {http://doi.acm.org/10.1145/566654.566572},
 doi = {10.1145/566654.566572},
 acmid = {566572},
 publisher = {ACM},
 address = {New York, NY, USA},
 keywords = {alpha channel, blue-screen matting, image-based rendering, layer
extraction, matting and compositing, video processing},
}
```

Ref:

Yung-Yu Chuang, Aseem Agarwala, Brian Curless, David H. Salesin, and Richard Szeliski. 2002. Video matting of complex scenes. In Proceedings of the 29th annual conference on Computer graphics and interactive techniques (SIGGRAPH '02). ACM, New York, NY, USA, 243-248. DOI=*http://dx.doi.org/10.1145/566570.566572*

Yung-Yu Chuang, Aseem Agarwala, Brian Curless, David H. Salesin, and Richard Szeliski. 2002. Video matting of complex scenes. ACM Trans. Graph. 21, 3 (July 2002), 243-248. DOI=http://dx.doi.org/10.1145/566654.566572

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Source : *Computers and Graphics* (C&G)

1. Mobile objects and the hyoctane distributed hyperdocument server

BibTex :

@article{RUTLEDGE1996633,
title = "Mobile objects and the hyoctane distributed hyperdocument server",
journal = "Computers & Graphics",
volume = "20",
number = "5",
pages = "633 - 639",
year = "1996",
note = "Mobile Computing",
issn = "0097-8493",
doi = "https://doi.org/10.1016/S0097-8493(96)00037-4",
url = "http://www.sciencedirect.com/science/article/pii/S0097849396000374",
author = "Lloyd Rutledge and John Buford and Roger Price",
abstract = "Mobile objects are programs passed between distributed information servers for execution on remote sites within a limited environment. We describe the MHEG virtual machine specification which supports mobile code in a heterogeneous environment. MHEG VM is suitable for integration in many different distributed information systems, including the WWW. We briefly describe the possible integration of the MHEG VM with the HyOctane hypermedia system. We conclude this paper by discussing various issues associated with the design of robust mobile code systems."
}

Ref:

Özsu M.T., Igiinski P., Szafron D., El-Medani S., Junghanns M.
An object-oriented SGML/HyTime compliant multimedia database management system
Proceedings of the 5th ACM International Conference on Multimedia, MULTIMEDIA 1997, 1997
https://doi.org/10.1016/S0097-8493(96)00035-0

2.Multi-scale surface reconstruction based on a curvature-adaptive signed distance field

BibTex :

```
@article{TANG201828,
title = "Multi-scale surface reconstruction based on a curvature-adaptive
signed distance field",
journal = "Computers & Graphics",
volume = "70",
pages = "28 - 38",
year = "2018",
note = "CAD/Graphics 2017",
issn = "0097-8493",
doi = "https://doi.org/10.1016/j.cag.2017.07.015",
url = "http://www.sciencedirect.com/science/article/pii/S0097849317301085",
author = "Yizhi Tang and Jieqing Feng",
keywords = "Surface reconstruction, Adaptive signed distance field, Multi-scale
B-splines, Principal curvature"
}
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Ref:

author = "Yizhi Tang and Jieqing Feng",

keywords = "Surface reconstruction, Adaptive signed distance field, Multi-scale B-splines, Principal curvature"

https://doi.org/10.1016/j.cag.2017.07.015
_____

Source :*Computer Graphics Forum* (CGF)

1.Metamorphosis of Polyhedral Surfaces using Decomposition.

BibTex :

@article{765825920020901,
Abstract = {Describes an algorithm for morphing polyhedral surfaces based on their decomposition into patches. Details of a projection scheme that handles topologically cylinder-like polyhedral surfaces; Overview of electing the initial representatives of the patches; Results of embedding cylinder-like patches.},
Author = {Shlafman, Shymon and Tal, Ayellet and Katz, Sagi},
ISSN = {01677055},
Journal = {Computer Graphics Forum},
Keywords = {ALGORITHMS, MORPHING (Computer animation), TOPOLOGY},
Number = {3},
Pages = {219},
Title = {Metamorphosis of Polyhedral Surfaces using Decomposition.},
Volume = {21},
URL = {https://umasslowell.idm.oclc.org/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=7658259&site=ehost-live},
Year = {2002},
}

2. Generalized As-Similar-As-Possible Warping with Applications in Digital Photography.

BibTex :

@article{1157745812060501,
Abstract = {Discrete conformal mappings of planar triangle meshes, also known as the As-Similar-As-Possible (ASAP) mapping, involve the minimization of a quadratic energy function, thus are very easy to generate and are popular in image warping scenarios. We generalize this classical mapping to the case of quad meshes, taking into account the mapping of the interior of the quad, and analyze in detail the most common case - the unit grid mesh. We show that the generalization, when combined with barycentric coordinate mappings between the source and target polygons, spawns an entire family of new mappings governed by quadratic energy functions, which allow to control quite precisely various effects of the mapping. This approach is quite general and applies also to arbitrary planar polygon meshes. As an application of generalized ASAP mappings of the unit grid mesh, we demonstrate how they can be used to warp digital photographs to achieve a variety of effects. One such effect is modifying the persp},
Author = {Chen, Renjie and Gotsman, Craig},
ISSN = {01677055},
Journal = {Computer Graphics Forum},
Keywords = {DIGITAL photography, DIGITAL electronics, PHOTOGRAPHY, COMPUTER graphics, COMPUTER art, Categories and Subject Descriptors (according to ACM CCS), I.3.8 [Computer Graphics]: Applications},
Number = {2},
Pages = {81 - 92},
Title = {Generalized As-Similar-As-Possible Warping with Applications in Digital Photography.},
Volume = {35},
URL = {https://umasslowell.idm.oclc.org/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=aph&AN=115774581&site=ehost-live},
Year = {2016},
}
_____

Source :Visual Computer

1.Facial age estimation by using stacked feature composition and selection

Bibtex:

@Article{Li2016,
author="Li, Ya

and Peng, Zhanglin
and Liang, Depeng
and Chang, Huiyou
and Cai, Zhaoquan",
title="Facial age estimation by using stacked feature composition and selection",
journal="The Visual Computer",
year="2016",
month="Dec",
day="01",
volume="32",
number="12",
pages="1525--1536",
abstract="In this paper we propose a novel hierarchical feature composition and selection model used in facial age estimation. In recent years, hierarchical architectures have been shown to outperform the flat structure on a variety of visual modeling tasks and has drawn a lot of attention. In our hierarchical architecture, we use biological inspired features as primitive features, then alternatively select and composite newer features. Firstly, we select features in a boosting way and then weightily combine adjacent selected features. The whole process of feature selection and combination is called a boosting layer. We then stack multiple boosting layers into a hierarchical model. In each boosting layer, a number of weak classifiers comprise the selected features, and their combination weights are inversely proportional against the training errors of weak classifiers. In this way, features of a high layer are more descriptive and with higher semantics, while features of a lower layer include more physical details. We expect that this kind of structural features will be more expressive and objective and hence perform better and with higher efficiency in facial age estimation. Our experimental results on two aging face databases MORPH and FG-NET have shown significant reduction on mean absolute error of age estimation compared with other state-of-the-art methods.",
issn="1432-2315",
doi="10.1007/s00371-015-1137-4",
url="https://doi.org/10.1007/s00371-015-1137-4"
}

2.Real-time rendering of refracting transmissive objects with multi-scale rough surfaces

Bibtex:

@Article{Guo2016,
author="Guo, Jie
and Pan, Jin-Gui",
title="Real-time rendering of refracting transmissive objects with multi-scale rough surfaces",
journal="The Visual Computer",
year="2016",
month="Dec",
day="01",
volume="32",
number="12",
pages="1579--1592",
abstract="This paper presents an efficient approach to render refracting transmissive objects with multi-scale surface roughness, under distant illumination. To correctly capture both fine-scale surface details and large-scale appearances, and enable real-time processing at various viewing resolutions, we first divide the surface roughness into three levels, namely, micro-scale, meso-scale and macro-scale. Each scale of roughness is modeled and evaluated using different strategies, and the overall roughness is approximated by their spherical convolution. Then, this representation is incorporated into a microfacet-based BTDF model, and multi-scale rough refractions are simulated on both front and back sides of an object as light enters and exits the object. In particular, non-linear filtering methods are applied to both macro-scale geometries and meso-scale bumps to reduce aliasing when viewed across a range of distances. Finally, experimental results illustrate that our approach produces resolution-dependent refraction effects that match super-sampled ground truth, while achieving a speed up of several orders of magnitude with hardware acceleration.",
issn="1432-2315",
doi="10.1007/s00371-015-1141-8",
url="https://doi.org/10.1007/s00371-015-1141-8"
}

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