

CITIZENSHIP: Hong Kong and Australia permanent resident

EDUCATION

PhD in Computer Science (2000), The University of Southern California (**USC**)
MSc in Computer Science (1999), The University of Southern California (**USC**)
MPhil in Computer Science (1994), The Hong Kong University of Science and Technology (**HKUST**)
BSc in Computer Science (1992), The Chinese University of Hong Kong (**CUHK**)

ACADEMIC EMPLOYMENT

July 2009 – present, Professor, Dept of CSE, **HKUST**
July 2005 – June 2009, Associate Professor, Dept of CSE, **HKUST**
January 2000 – June 2005, Assistant Professor, Dept of CSE, **HKUST**

HONORS AND AWARDS

IEEE Fellow for *contributions in interactive segmentation algorithms for computer graphics applications*
Google Faculty Award for *quasi-dense 3D reconstruction from 2D uncalibrated photos*
US patent # 8564590: *imparting three-dimensional characteristics in a two-dimensional space*

PROFESSIONAL SERVICES

Associate Editor, IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**), 2009 – 2014
Editorial Board Member, International Journal on Computer Vision (**IJCV**), 2008 – 2014
Area Chair, IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**) 2021
Area Chair, European Conference on Computer Vision (**ECCV**) 2020, 2022, 2024
Area Chair, IEEE/CVF International Conference on Computer Vision (**ICCV**) 2007, 2009, 2011, 2015, 2017, 2019, 2021
Technical Papers Committee Member, **SIGGRAPH** 2011, 2012
Technical Papers Committee Member, **SIGGRAPH Asia** 2008, 2011, 2012, 2014, 2015

UNIVERSITY SERVICES

Professorial: Chair or elected/appointed member of CSE departmental substantiation and promotion committee (consecutive 10+ years), chair or member of CSE merit salary review committee (multiple times)
Student: Residence Master (formerly Hall Warden) for over 10 years providing pastoral care to undergrads

RESEARCH GRANTS

General Research Fund: 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2012, 2013, 2014, 2019, 2021, 2022 (sole PI; totaling over HK\$8M)
Theme-Based Research Scheme: 2019 (over HK\$7M for each co-PI), 2024 (HK\$2M for each co-PI)
Industrial Donation: Google, Tencent, Kuaishou (sole PI; totaling close to HK\$3M)

NOTABLE GRADUATES

UGs, PGs and Postdocs: Jiaya Jia (Professor, CUHK and Associate Editor-in-Chief, TPAMI), Yu-Wing Tai (Associate Professor, Dartmouth College), Sai Kit Yeung (Associate Professor, HKUST), Cewu Lu (Professor, SJTU), Qifeng Chen (Assistant Professor, HKUST), Efstratios Tsougenis (AI Lab Manager, Hospital Authority).

TOP CONFERENCE PUBLICATIONS

Typographic conventions: Dr. Tang’s HKUST student co-authors under his direct supervision during their studies at HKUST are asterisked (*), i.e., graduated student co-authors, research assistants, postdocs, collaborators outside of HKUST are *not* asterisked.

1. Yichen Liu*, Benran Hu, **Chi-Keung Tang**, Yu-Wing Tai. SANeRF-HQ: Segment Anything for NeRF in High Quality. **CVPR** 2024.
2. Xinhang Liu*, Yu-Wing Tai, **Chi-Keung Tang**, Pedro Miraldo, Suhas Lohit, Moitreyia Chatterjee. Gear-NeRF: Free-Viewpoint Rendering and Tracking with Motion-aware Spatio-Temporal Sampling. **CVPR** 2024.
3. Juntao Zhang*, Yuehuai Liu*, Yu-Wing Tai, **Chi-Keung Tang**. C3Net: Compound Conditioned ControlNet for Multimodal Content Generation. **CVPR** 2024.
4. Hao Zhang*, Tianyuan Dai, Yanbo Xu, Yu-Wing Tai, **Chi-Keung Tang**. FaceDNeRF: Semantics-Driven Face Reconstruction, Prompt Editing and Relighting with Diffusion Models. **NeurIPS** 2023.
5. Haotong Qin, Lei Ke*, Xudong Ma, Martin Danelljan, Yu-Wing Tai, **Chi-Keung Tang**, Xianglong Liu, Fisher Yu. BiMatting: Efficient Video Matting via Binarization. **NeurIPS** 2023.
6. Lei Ke*, Mingqiao Ye, Martin Danelljan, Yifan Liu, Yu-Wing Tai, **Chi-Keung Tang**, Fisher Yu. Segment Anything in High Quality. **NeurIPS** 2023.
7. Yichen Liu*, Benran Hu*, Junkai Huang*, Yu-Wing Tai, **Chi-Keung Tang**. Instance Neural Radiance Field. **ICCV** 2023.
8. Yue Xu, Yong-Lu Li, Zhemin Huang, Michael Xu Liu, Cewu Lu, Yu-Wing Tai, **Chi-Keung Tang**. A New Framework for Egocentric Hand-Object Interaction Understanding. **ICCV** 2023.
9. Mingqiao Ye, Lei Ke*, Siyuan Li, Yu-Wing Tai, **Chi-Keung Tang**, Martin Danelljan, Fisher Yu. Cascade-DETR: Delving into High-Quality Universal Object Detection. **ICCV** 2023.
10. Lei Ke*, Martin Danelljan, Henghui Ding, Yu-Wing Tai, **Chi-Keung Tang**, Fisher Yu. Mask-Free Video Instance Segmentation. **CVPR** 2023.
11. Benran Hu*, Junkai Huang*, Yichen Liu*, Yu-Wing Tai, **Chi-Keung Tang**. NeRF-RPN: A General Framework for Object Detection in NeRF. **CVPR** 2023.
12. Yanan Sun*, **Chi-Keung Tang**, Yu-Wing Tai. Ultrahigh Resolution Image/Video Matting with Spatio-Temporal Sparsity. **CVPR** 2023.
13. Qi Fan*, Mattia Segù, Yu-Wing Tai, Fisher Yu, **Chi-Keung Tang**, Bernt Schiele, Dengxin Dai. A Simple Domain Generalization Method for Real-World Domain Shifts. **ICLR** 2023.
14. Xinhang Liu*, Jiaben Chen, Huai Yu, Yu-Wing Tai, **Chi-Keung Tang**. Unsupervised Multi-View Object Segmentation Using Radiance Field Propagation. **NeurIPS** 2022.
15. Qi Fan*, Wenjie Pei, Yu-Wing Tai, **Chi-Keung Tang**. Self-Support Few-Shot Semantic Segmentation. **ECCV** 2022.
16. Qi Fan*, Yu-Wing Tai, **Chi-Keung Tang**. Few-Shot Video Object Detection. **ECCV** 2022.
17. Qi Fan*, **Chi-Keung Tang**, and Yu-Wing Tai. Few-shot object detection with model calibration. **ECCV** 2022.

18. Lei Ke*, Martin Danelljan, Xia Li, Yu-Wing Tai, **Chi-Keung Tang**, Fisher Yu. Video Mask Transfomer for High-Quality Video Instance Segmentation. **ECCV 2022**.
19. Yanan Sun*, **Chi-Keung Tang**, Yu-Wing Tai. Human Instance Matting via Mutual Guidance and Multi-Instance Refinement. **CVPR 2022**.
20. Xinpeng Liu, Yong-Lu Li, Xiaoqian Wu, Yu-Wing Tai, Cewu Lu, **Chi-Keung Tang**. Interactiveness Field in Human-Object Interactions. **CVPR 2022**.
21. Lei Ke*, Martin Danelljan, Xia Li, Yu-Wing Tai, **Chi-Keung Tang**, Fisher Yu. Mask Transfomer for High-Quality Instance Segmentation. **CVPR 2022**.
22. Lei Ke*, Xia Li, Martin Danelljan, Yu-Wing Tai, **Chi-Keung Tang**, Fisher Yu. Prototypical Cross-Attention Networks for Multiple Object Tracking and Segmentation. **NeurIPS 2021**.
23. Ho Kei Cheng*, Yu-Wing Tai, **Chi-Keung Tang**. Rethinking Space-Time Networks with Improved Memory Coverage for Efficient Video Object Segmentation. **NeurIPS 2021**.
24. Lei Ke*, Yu-Wing Tai, **Chi-Keung Tang**. Occlusion-Aware Video Object Inpainting. **ICCV 2021**.
25. Jihoon Chung*, Cheng-hsin Wu*, Hsuan-ru Yang*, Yu-Wing Tai, **Chi-Keung Tang**. HAA500: Human-Centric Atomic Action Dataset with Curated Videos. **ICCV 2021**.
26. Qi Fan*, Deng Ping Fan, Hua Zhu Fu, **Chi-Keung Tang**, Ling Shao, Yu-Wing Tai. Group Collaborative Learning for Co-Salient Object Detection. **CVPR 2021**.
27. Yanan Sun*, **Chi-Keung Tang**, Yu-Wing Tai. Semantic Image Matting. **CVPR 2021**.
28. Yanan Sun*, Guanzhi Wang, Qiao Gu, **Chi-Keung Tang**, Yu-Wing Tai. Deep Video Matting via Spatio-Temporal Alignment and Aggregation. **CVPR 2021**.
29. Ho Kei Cheng*, Yu-Wing Tai, **Chi-Keung Tang**. Modular Interactive Video Object Segmentation: Interaction-to-Mask, Propagation and Difference-Aware Fusion. **CVPR 2021**.
30. Lei Ke*, Yu-Wing Tai, **Chi-Keung Tang**. Deep Occlusion-Aware Instance Segmentation With Overlapping BiLayers. **CVPR 2021**.
31. Qi Fan*, Lei Ke*, Wenjie Pei, **Chi-Keung Tang**, Yu-Wing Tai. Commonality-Parsing Network across Shape and Appearance for Partially Supervised Instance Segmentation. **ECCV 2020**.
32. Lei Ke*, Shichao Li, Yanan SUN*, Yu-Wing Tai, **Chi-Keung Tang**. GSNet: Joint Vehicle Pose and Shape Reconstruction with Geometrical and Scene-aware Supervision. **ECCV 2020**.
33. Xiang Li*, Tianhan Wei*, Yau Pun Chen*, Yu-Wing Tai, **Chi-Keung Tang**. FSS-1000: A 1000-Class Dataset for Few-Shot Segmentation. **CVPR 2020**.
34. Xuhua Huang*, Jiarui Xu*, Yu-Wing Tai, **Chi-Keung Tang**. Fast Video Object Segmentation With Temporal Aggregation Network and Dynamic Template Matching. **CVPR 2020**.
35. Qi Fan*, Wei Zhuo, **Chi-Keung Tang**, Yu-Wing Tai. Few-Shot Object Detection With Attention-RPN and Multi-Relation Detector. **CVPR 2020**.
36. Ho Kei Cheng*, Jihoon Chung*, Yu-Wing Tai, **Chi-Keung Tang**. CascadePSP: Toward Class-Agnostic and Very High-Resolution Segmentation via Global and Local Refinement. **CVPR 2020**.
37. Shichao Li, Lei Ke*, Kevin Pratama, Yu-Wing Tai, **Chi-Keung Tang**, Kwang-Ting Cheng. Cascaded Deep Monocular 3D Human Pose Estimation With Evolutionary Training Data. **CVPR 2020**.

38. Qiao Gu*, Guanzhi Wang*, Mang Tik Chiu, Yu-Wing Tai, **Chi-Keung Tang**. LADN: Local Adversarial Disentangling Network for Facial Makeup and De-Makeup. **ICCV** 2019.
39. Xiaohui Zeng*, Chenxi Liu, Yu-Siang Wang, Weichao Qiu, Lingxi Xie, Yu-Wing Tai, **Chi-Keung Tang**, Alan L Yuille. Adversarial attacks beyond the image space. **CVPR** 2019. pp. 4302-4311.
40. Yongyi Lu*, Yu-Wing Tai, **Chi-Keung Tang**. Attribute-Guided Face Generation Using Conditional CycleGAN. **ECCV** 2018, pp. 282-297.
41. Yongyi Lu*, Shangzhe Wu*, Yu-Wing Tai, **Chi-Keung Tang**. Image Generation from Sketch Constraint Using Contextual GAN. **ECCV** 2018, pp. 205-220.
42. Haoye Cai*, Chunyan Bai*, Yu-Wing Tai, **Chi-Keung Tang**. Deep Video Generation, Prediction and Completion of Human Action Sequences. **ECCV** 2018, pp. 366-382.
43. Shangzhe Wu*, Jiarui Xu*, Yu-Wing Tai, **Chi-Keung Tang**. Deep High Dynamic Range Imaging with Large Foreground Motions. **ECCV** 2018, pp. 117-132.
44. Cewu Lu, Hao Su, Yonglu Li, Yongyi Lu*, Li Yi, **Chi-Keung Tang**, Leonidas J. Guibas. Beyond Holistic Object Recognition: Enriching Image Understanding With Part States. **CVPR** 2018.
45. Zheng Wu, Ruiheng Chang, Jiaxu Ma, Cewu Lu, **Chi-Keung Tang**. Annotation-Free and One-Shot Learning for Instance Segmentation of Homogeneous Object Clusters. **IJCAI** 2018: 1036-1042.
46. Cewu Lu, Yongyi Lu*, **Chi-Keung Tang**. Online Video Object Detection using Association LSTM. **ICCV** 2017.
47. Hengyuan Hu*, Rui Peng*, Yu-Wing Tai, **Chi-Keung Tang**: Network Trimming: A Data-Driven Neuron Pruning Approach towards Efficient Deep Architectures. **CoRR** abs/1607.03250 (2016).
48. Cewu Lu, Yongyi Lu*, Hao Chen, **Chi-Keung Tang**. Square Localization for Efficient and Accurate Object Detection. **ICCV** 2015.
49. Cewu Lu, Shu Liu, Jiaya Jia, **Chi-Keung Tang**. Contour Box: Rejecting Object Proposals Without Explicit Closed Contours. **ICCV** 2015.
50. Yao Xiao*, Cewu Lu, Efstratios Tsougenis, Yongyi Lu*, **Chi-Keung Tang**. Complexity-Adaptive Distance Metric for Object Proposals Generation. **CVPR** 2015.
51. Yao Xiao*, Efstratios Tsougenis, **Chi-Keung Tang**. Shadow Detection from Single RGB-D Images. **CVPR** 2014.
52. Cewu Lu, Jiaya Jia, **Chi-Keung Tang**. Range-Sample Depth Feature for Action Recognition. **CVPR** 2014.
53. Cewu Lu, Di Lin, Jiaya Jia, **Chi-Keung Tang**. Two-Class Weather Classification. **CVPR** 2014.
54. Dingzeyu Li*, Qifeng Chen, **Chi-Keung Tang**. Motion-Aware KNN Laplacian for Video Matting. **ICCV** 2013.
55. Qifeng Chen*, Dingzeyu Li*, **Chi-Keung Tang**. KNN Matting. **CVPR** 2012.
56. Sai Kit Yeung, Tai-Pang Wu, **Chi-Keung Tang**, Tony F. Chan, Stanley Osher. Adequate reconstruction of transparent objects on a shoestring budget. **CVPR** 2011.
57. Tai-Pang Wu, Sai Kit Yeung, Jiaya Jia, **Chi-Keung Tang**. Quasi-dense 3D reconstruction using tensor-based multiview stereo. **CVPR** 2010.

58. Jia Chen*, Lu Yuan, **Chi-Keung Tang**, Long Quan. Robust dual motion deblurring. **CVPR** 2008.
59. Sai Kit Yeung*, **Chi-Keung Tang**, Pengcheng Shi, Josien P. W. Pluim, Max A. Viergever, Albert C. S. Chung, Helen C. Shen. Enforcing stochastic inverse consistency in non-rigid image registration and matching. **CVPR** 2008.
60. Sai Kit Yeung*, Tai-Pang Wu, **Chi-Keung Tang**. Extracting smooth and transparent layers from a single image. **CVPR** 2008.
61. Zhouchen Lin, Junfeng He, Xiaoou Tang, **Chi-Keung Tang**. Limits of Learning-Based Superresolution Algorithms. **ICCV** 2007.
62. Heung-Sun Ng*, Tai-Pang Wu, Chi-Keung Tang. Surface-from-Gradients with Incomplete Data for Single View Modeling. **ICCV** 2007.
63. Yu-Wing Tai*, Michael S. Brown, **Chi-Keung Tang**. Robust Estimation of Texture Flow Distortion via Dense Feature Sampling. **CVPR** 2007.
64. Jia Chen*, **Chi-Keung Tang**. Spatio-Temporal Markov Random Field for Video Denoising. **CVPR** 2007.
65. Yu-Wing Tai*, Wai-Shun Tong, **Chi-Keung Tang**. Perceptually-Inspired and Edge-Directed Color Image Super-Resolution. **CVPR** 2006.
66. Tai-Pang Wu*, **Chi-Keung Tang**. Visible Surface Reconstruction from Normals with Discontinuity Consideration. **CVPR** 2006.
67. Tai-Pang Wu*, **Chi-Keung Tang**. Dense Photometric Stereo by Expectation Maximization. **ECCV** 2006.
68. Jiaya Jia, **Chi-Keung Tang**. Eliminating Structure and Intensity Misalignment in Image Stitching. **ICCV** 2005.
69. Tai-Pang Wu*, **Chi-Keung Tang**. A Bayesian Approach for Shadow Extraction from a Single Image. **ICCV** 2005.
70. Tai-Pang Wu*, **Chi-Keung Tang**. Dense Photometric Stereo Using a Mirror Sphere and Graph Cut. **CVPR** 2005.
71. Kam-Lun Tang*, **Chi-Keung Tang**, Tien-Tsin Wong. Dense Photometric Stereo Using Tensorial Belief Propagation. **CVPR** 2005.
72. Yu-Wing Tai*, Jiaya Jia, **Chi-Keung Tang**. Local Color Transfer via Probabilistic Segmentation by Expectation-Maximization. **CVPR** 2005.
73. Jiaya Jia*, Tai-Pang Wu*, Yu-Wing Tai*, **Chi-Keung Tang**. Video Repairing: Inference of Foreground and Background Under Severe Occlusion. **CVPR** 2004.
74. Jiaya Jia*, Jian Sun, **Chi-Keung Tang**, Heung-Yeung Shum. Bayesian Correction of Image Luminance with Spatial Consideration. **ECCV** 2004.
75. Tai-Pang Wu*, **Chi-Keung Tang**. Separating Specular, Diffuse, and Subsurface Scattering Reflectances from Photometric Images. **ECCV** 2004.
76. Jiaya Jia*, **Chi-Keung Tang**. Image Registration with Global and Local Luminance Alignment. **ICCV** 2003.

77. Jiaya Jia*, **Chi-Keung Tang**. Image Repairing: Robust Image Synthesis by Adaptive ND Tensor Voting. **CVPR** 2003.
78. Wai-Shun Tong*, **Chi-Keung Tang**. ROD-TV: Reconstruction on demand by Tensor Voting. **CVPR** 2003.
79. Wai-Shun Tong*, **Chi-Keung Tang**, Gerard Medioni. First Order Tensor Voting, and Application to 3-D Scale Inference. **CVPR** 2001.
80. Wai-Shun Tong*, **Chi-Keung Tang**, Gerard Medioni. Epipolar Geometry Estimation for Non-Static Scenes by 4D Tensor Voting. **CVPR** 2001.
81. Yin Li*, **Chi-Keung Tang**, Heung-Yeung Shum. Efficient Dense Depth Estimation from Dense Multi-perspective Panoramas. **ICCV** 2001.
82. **Chi-Keung Tang**, Gerard Medioni, Mi Suen Lee. Epipolar Geometry Estimation by Tensor Voting in 8D. **ICCV** 1999.
83. **Chi-Keung Tang**, Gerard Medioni. Robust Estimation of Curvature Information from Noisy 3D Data for Shape Description. **ICCV** 1999.
84. **Chi-Keung Tang**, Gerard Medioni. Integrated Surface, Curve and Junction Inference from Sparse 3-D Data Sets. **ICCV** 1998.

TOP JOURNAL PUBLICATIONS

1. Qi Fan, Wei Zhuo, **Chi-Keung Tang**, Yu-Wing Tai. FSODv2: A Deep Calibrated Few-Shot Object Detection Network. *International Journal on Computer Vision (IJCV)* 2024.
2. Yanan Sun, **Chi-Keung Tang**, Yu-Wing Tai. Semantic Image Matting: General and Specific Semantics. *International Journal on Computer Vision (IJCV)* 132 (3): 710-730 (2023).
3. Peng Zheng, Huazhu Fu, Deng-Ping Fan, Qi Fan*, Jie Qin, Yu-Wing Tai, **Chi-Keung Tang**, Luc Van Gool. GCoNet+: Group Collaborative Learning for Co-Salient Object Detection. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)* 45(9): 10929-10946 (2023).
4. Lei Ke*, Yu-Wing Tai, **Chi-Keung Tang**. Occlusion-Aware Instance Segmentation via BiLayer Network Architectures. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)* 45(8): 10197-10211 (2023).
5. Yang You, Cewu Lu, Weiming Wang, **Chi-Keung Tang**. Relative CNN-RNN: Learning relative atmospheric visibility from images. *IEEE Transactions on Image Processing (TMI)* 28(1): 45-55 (2018).
6. Cewu Lu, Di Lin, Jiaya Jia, **Chi-Keung Tang**. Two-class Weather Classification. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)* 39(12): 2510-2524 (2017).
7. Sai-Kit Yeung*, Tai-Pang Wu, **Chi-Keung Tang**, Tony F. Chan, Stanley Osher. Normal Estimation of a Transparent Object Using a Video. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)* 37(4): 890-897 (2015).
8. Qifeng Chen*, Dingzeyu Li*, **Chi-Keung Tang**. KNN Matting. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)* 35(9): 2175-2188 (2013).
9. Tai-Pang Wu, Sai-Kit Yeung, Jiaya Jia, **Chi-Keung Tang**, Gerard Medioni. A Closed-Form Solution to Tensor Voting: Theory and Applications. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)* 34(8): 1482-1495 (2012).

10. Lap-Fai Yu, Sai-Kit Yeung, **Chi-Keung Tang**, Demetri Terzopoulos, Tony F. Chan, Stanley Osher. Make it Home: Automatic Optimization of Furniture Arrangement. *ACM SIGGRAPH and ACM Transactions on Graphics (TOG)*, 2011 30(4): 86 (2011).
11. Sai-Kit Yeung*, **Chi-Keung Tang**, Michael S. Brown, Sing Bing Kang. Matting and Compositing of Transparent Objects. *ACM Transactions on Graphics (TOG)* 30(1): 2:1-2:13 (2011).
12. Heung-Sun Ng, Tai-Pang Wu, **Chi-Keung Tang**. Surface-From-Gradients Without Discrete Integrability Enforcement: A Gaussian Kernel Approach. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)* 32(11): 2085-2099 (2010).
13. Tai-Pang Wu, Philip Chi-Wing Fu, Sai-Kit Yeung*, Jiaya Jia, **Chi-Keung Tang**. Modeling and Rendering of Impossible Figures. *ACM Transactions on Graphics (TOG)*. Vol. 29, no. 2, 13, 2010.
14. Tai-Pang Wu*, **Chi-Keung Tang**. Photometric Stereo via Expectation Maximization. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*. Vol. 32, no. 3, 2010.
15. Zhouchen Lin, Junfeng He, Xiaoou Tang, Chi-Keung Tang. Fast, automatic and fine-grained tampered JPEG image detection via DCT coefficient analysis. *Pattern Recognition* 42(11): 2492-2501 (2009).
16. Jia Chen*, **Chi-Keung Tang**, Jue Wang. NoiseBrush: Interactive High Quality Image-Noise Separation. *ACM Transactions on Graphics (TOG)*. Vol. 28, no. 5, 2009.
17. Qi Shan, Zhaorong Li, Jiaya Jia, **Chi-Keung Tang**. Fast Image/Video Upsampling. *ACM Transactions on Graphics (TOG)* 27(5): 153 (2008).
18. Tai-Pang Wu*, Jian Sun, **Chi-Keung Tang**, Heung-Yeung Shum. Interactive normal reconstruction from a single image. *ACM Transactions on Graphics (TOG)* 27(5): 119 (2008).
19. Yu-Wing Tai*, Michael S. Brown, Chi-Keung Tang, Heung-Yeung Shum. Texture amendment: reducing texture distortion in constrained parameterization. *ACM Transactions on Graphics (TOG)* 27(5): 136 (2008).
20. Jiaya Jia, **Chi-Keung Tang**. Image Stitching Using Structure Deformation. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*. Vol 30, no. 4, 2008.
21. Tai-Pang Wu*, Jian Sun, **Chi-Keung Tang**, Heung-Yeung Shum. Interactive Normal Reconstruction from a Single Image. *ACM Transactions on Graphics (TOG)*. vol. 27, no. 5, 2008.
22. Zhouchen Lin, Junfeng He, Xiaoou Tang, **Chi-Keung Tang**. Limits of Learning-Based Superresolution Algorithms. *International Journal on Computer Vision (IJCV)*.
23. Yu-Wing Tai*, Jiaya Jia, **Chi-Keung Tang**. Soft Color Segmentation and its Applications. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*. Vol. 29, no. 9, 2007.
24. Tai-Pang Wu*, **Chi-Keung Tang**, Michael S. Brown, Heung-Yeung Shum. ShapePalettes: Interactive Normal Transfer via Sketching. *ACM SIGGRAPH and ACM Transactions on Graphics (TOG)*. Vol. 26, no. 3, 2007.
25. Tai-Pang Wu*, **Chi-Keung Tang**, Michael S. Brown, Heung-Yeung Shum. Natural Shadow Matting. *ACM Transactions on Graphics (TOG)*. Vol. 26, no. 2, 2007.
26. Jiaya Jia*, Jian Sun, **Chi-Keung Tang**, Heung-Yeung Shum. Drag-and-Drop Pasting. *ACM SIGGRAPH and ACM Transactions on Graphics (TOG)*. Vol. 25, no. 3, 2006, pp. 631–636.

27. Tai-Pang Wu*, Kam-Lun Tang*, **Chi-Keung Tang**, Tien-Tsin Wong. Dense Photometric Stereo: A Markov Random Field Approach. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, vol. 28, no. 11, 2006, pp. 1830–1846.
28. Jiaya Jia*, Yu-Wing Tai*, Tai-Pang Wu*, **Chi-Keung Tang**. Video Repairing Under Variable Illumination Using Cyclic Motions. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, vol. 28, no. 5, 2006, pp. 832–839.
29. *Wai-Shun Tong, **Chi-Keung Tang**. Robust Estimation of Adaptive Tensors of Curvature by Tensor Voting. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, vol. 27, no. 3, March 2005, pp. 434–449.
30. Jiaya Jia*, **Chi-Keung Tang**. Tensor Voting for Image Correction by Global and Local Intensity Alignment. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, vol. 27, no. 1, January 2005, pages 36–50.
31. *Wai-Shun Tong, **Chi-Keung Tang**, Gerard Medioni. Simultaneous Two-View Epipolar Geometry Estimation and Motion Segmentation by 4D Tensor Voting. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, vol. 26, no. 9, September 2004, pages 1167–1184.
32. Yin Li*, Jian Sun, **Chi-Keung Tang**, Heung-Yeung Shum. Lazy Snapping. *ACM SIGGRAPH and ACM Transactions on Graphics (TOG)*. Vol. 23, no. 3, 2004, pages 303–308.
33. Jian Sun, Jiaya Jia*, **Chi-Keung Tang**, Heung-Yeung Shum. Poisson Matting. *ACM SIGGRAPH and ACM Transactions on Graphics (TOG)*. Vol. 23, no. 3, 2004, pages 315–321.
34. Jiaya Jia*, **Chi-Keung Tang**. Inference of Segmented Color and Texture Information by Tensor Voting. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, vol. 26, no. 6, June 2004, pp. 771–786.
35. Wai-Shun Tong*, **Chi-Keung Tang**, Philippos Mordohai, Gerard Medioni. First Order Augmentation to Tensor Voting for Boundary Inference and Multiscale Analysis in 3D. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, vol. 26, no. 5, May 2004, pp. 594–611.
36. Heung-Yeung Shum, Jian Sun, Shuntaro Yamazaki, Yin Li*, **Chi-Keung Tang**. Pop-Up Lightfield: an Interactive Image-Based Modeling and Rendering System. *ACM Transactions on Graphics (TOG)*, vol. 23, no. 2, April 2004, pages 143-162.
37. Yin Li*, Heung-Yeung Shum, **Chi-Keung Tang**, Richard Szeliski. Stereo Reconstruction from Multiperspective Panoramas. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, vol. 26, no. 1, January 2004, pp. 45-62.
38. Chi-Wing Fu, Tien-Tsin Wong, Wai-Shun Tong*, **Chi-Keung Tang**, Andrew J. Hanson. Binary-Space-Partitioned Images for Resolving Image-based Visibility. *IEEE Transactions on Visualization and Computer Graphics (TVCG)*, vol. 10, no. 1, January-February 2004, pp. 58-71.
39. **Chi-Keung Tang**, Gerard Medioni. A Curvature-Augmented Tensorial Framework for Shape Inference from Noisy, 3-D Data. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, vol. 24, no. 6, June 2002.
40. **Chi-Keung Tang**, Gerard Medioni, Mi Suen Lee. N-Dimensional Tensor Voting, and Application to Epipolar Geometry Estimation. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, vol. 23, no. 8, August 2001, pp. 829-844.
41. **Chi-Keung Tang**, Gerard Medioni. Inference of Integrated Surface, Curve, and Junction Descriptions from Sparse 3-D Data. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, vol. 20, no. 11, November 1998, pp. 1206-1233.