Professor Mark W. Jones
Swansea University

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🌐 https://swansea.ac.uk/staff/m.w.jones/
⌨ https://markwjones.github.io/
▶ https://www.youtube.com/@markwjones/videos
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Research Interests

Professor Mark W. Jones is a data scientist with areas of expertise in photon mapping, ray tracing, global illumination, visualization, kernel density estimation, time-series data, accelerometry data, transfer functions, probability density functions, clustering, Monte-Carlo techniques, statistics, distance measures, Lloyd's relaxation, Voronoi diagrams, vector/chamfer distances, volume rendering, data structures (kd-trees).

Employment History

March 2015 – present	**Professor,** in Department of Computer Science, Swansea University.
October 2012 – March 2015	**Reader,** in Department of Computer Science, Swansea University.
October 2006 – October 2012	**Senior lecturer,** in the Department of Computer Science, University of Wales Swansea (renamed as Swansea University in 2007).
October 1995 – October 2006	**Lecturer (A) then Lecturer (B),** in the Department of Computer Science, University of Wales Swansea.

Education

October 1992 – October 1995	**Ph.D., University of Wales Swansea** under the supervision of Min Chen with PhD awarded in October 1995. Thesis title: *The Visualisation Of Regular Three Dimensional Data.*
October 1989 – July 1992	**First Class B.Sc. with Honours, University of Wales Swansea** in Computer Science.

Notable Professional Leadership & Contributions

Serving the Graphics Community

2015	**Programme Chair,** *26th British Machine Vision Conference [4]*
2014–2017	**Associate Editor,** *Computer Graphics Forum*
2010–2020	**Management Board Member,** The Research Institute of Visual Computing
2003	**Conference Chair,** *TPCG '03, Birmingham, UK [5]*
2002	**Conference Chair,** *EGUK '02, Leicester, UK [6]*
	Elected member of the EGUK Executive Committee
1999	**Local Organisation Co-Chair,** Volume Graphics 1999

Leadership at Swansea University

2011–present	**REF Environment Lead,** Swansea University. Notably authoring the REF 2014 Environment, REF 2021 Environment and REF 2029 People, Culture and Environment submissions for UoA 11 (Computer Science).

Group Lead, Visual and Interactive Computing Group, Swansea University. Since 1992 when it was first established, the group has grown to a team of ten academics and around 20 researchers and PhD students. The group has built an international profile in the areas of Machine Learning, Computer Vision, Data Analysis, Data Visualisation, Ray Tracing and Global Illumination.

2011–2016   **Director of Computer Science Admissions, Swansea University,** encompassing policy, managing workflows for admissions, creating recruitment brochure, talks at open and visit days, meeting students/parents, handling all queries and UCAS forms, attending all meetings, gathering statistics, NSS, league tables.

External Examiner (BSc and MSc Programmes)

2006–present   **External,** moderator, or subject representative for programmes at various times for University of East Anglia, University of Wales, Aberystwyth University, and Warwick University.

Awards and Prizes

2020   **ICIP 2020, Top Viewed Q&A Paper Award 2nd place** The COVID struck ICIP was held entirely online in early 2021. Our paper *Lossless Compression For Volumetric Medical Images Using Deep Neural Network With Local Sampling* [65] was the second top viewed paper with a $1000 prize.

2017   **Computer Graphics and Visual Computing (CGVC) 2017, Best Full Paper Award** A best paper award for *Data Painter: A Tool for Colormap Interaction* [71].

2015   **Computer Graphics and Visual Computing (CGVC) 2015, Best Paper Award** A best paper award for *Multivariate Hybrid Visualisation of Ornithological Sensor Data* [73].

2013   **ACM Computing Reviews, Notable Article Award** An award for our Photon Mapping work [39].

Eurographics 2013, Best Paper Award Awarded for *Photon Parameterisation for Robust Relaxation Constraints* [39] with a prize of €1500 and a nVidia Quadro Kepler K6000 GPU.

Computer Graphics Forum, Cover Image: Prism Our entry *Prism* was judged to be the winning entry combining artistic and technical merit for the Cover Image competition and used for the *Computer Graphics Forum 2013* journal cover for a whole year.

2009   **Eurovis 2009, Best Paper Award** Awarded for *Visualization of Sensor Data from Animal Movement* which created new visualisation and analysis techniques for animal motion data in collaboration with biologists.

Computer Graphics Forum, Cover Image: Leaf Our entry *Water droplet on leaf* was judged to be the winning entry combining artistic and technical merit for the Cover Image competition and used for the *Computer Graphics Forum 2009* journal cover for a whole year.

Research Grants

Total award value £2,520,921

07/04/2022–07/04/2022   **£144,930, Innovate UK, Innovate UK KTP 21-22, Round 5** Awarded, but not started due to company pull out. *Principal Investigator*

30/09/2022–30/09/2026   **EPSRC, Efficient labelling of underwater datasets (Beam)** CDT Studentship (Jason Summers) with Vaarst/Beam. *Principal Investigator* ⌘

30/09/2019–31/05/2024   **EPSRC, UKHO Celestial Navigation Project** CDT Studentship (Floyd Hepburn-Dickins) with UKHO. *Principal Investigator* ⌘

30/09/2019–30/09/2023   **EPSRC, Geospatial machine learning in safety critical systems (UKHO)** CDT Studentship (Tulsi Patel) with UKHO. *Principal Investigator* ⌘

Research Grants (continued)

01/09/2018–31/08/2020	**£107,343, Welsh Government (COFUND), Developing new dimension reduction techniques and their integration with information visualisation for new visual analytics approaches** Awarded, started, but sadly ended early due to bereavement. *Principal Investigator*
01/12/2016–30/11/2019	**£174,813, Welsh Government (COFUND), Improving algorithms for scientific discoveries** This funded ManDuhu on a fellowship to work on advanced GPU algorithms. *Principal Investigator*
01/09/2016–15/08/2020	**£993,796, EPSRC, Data Release - Trust, Identity, Privacy and Security** £1,242,246 FEC. We (myself, John Tucker, Markus Roggenbach and Xianghua Xie at Swansea) worked with Victoria Wang and Mark Button at the Institute of Criminal Justice Studies, University of Portsmouth, bringing the total funding to £1.6M. Related grant: https://gtr.ukri.org/projects?ref=EP/N027825/1. *Principal Investigator* 🔗
01/04/2016–30/06/2016	**£30,000, DVLA, DVLA Data Aggregation Impact (DAI) project** *Principal Investigator*
01/09/2013–31/08/2015	**£89,523, Leverhulme, Advanced Visualisation Techniques for Urban Modelling/Simulation** This was a collaboration with Sir Alan Wilson of UCL CASA to introduce visualisation techniques into his dynamic urban modelling work. It funded Joel Dearden to work as an PDRA on the project. Joel was a fantastic person, and is greatly missed by everyone who knew him. *Principal Investigator*
01/08/2011–31/07/2014	**£247,013, EPSRC, Faster and higher quality global illumination** *Principal Investigator* 🔗
01/06/2011–30/06/2011	**£1,800, EADS, Visualisation of Network Security** *Principal Investigator*
01/01/2009–31/12/2012	**£100,000, Welsh Government, Sub-programme leader within the One Wales Research Institute for Visual Computing (RIVIC)** This was a large multi-site convergence grant (Bangor, Aberystwyth, Cardiff, Swansea, >£5M). The Swansea programme was led by Min Chen. I was a Sub-programme leader on the grant with a 3 year RA post funded and an equipment and travel budget. My component of Swansea's funding was about £100,000. I took over management of the grant at Swansea (>£1M) when Professor Min Chen left. *Co-investigator*
01/06/2005–01/06/2007	**£275,000, WDA/KEF, VISTA** Professor Min Chen was principal investigator. Together with Phil Grant, we worked on an online virtual, scalable, automatic gallery for multimedia presentation. *Co-investigator*
30/04/2004–29/07/2007	**£148,251, EPSRC, Volume Animation** Professor Min Chen was principal investigator in Swansea, I was co-investigator. Other members of the consortium are Swansea (Shoukat Islam and Simon Walton, postgraduates) and Bath (Professor Phil Willis + 1 RA). Following on from our research in Volume Graphics, we took the next step towards real-time volume graphics animation. *Co-investigator* 🔗
01/05/2004–30/09/2005	**£15,000, ReachIn, MPhil student funding from ReachIn Haptics** Together with Professor Min Chen, we obtained £15K funding for an MPhil student to work on Haptic research. *Co-PI*
01/01/2004–31/12/2006	**£130,685, EPSRC, An Advanced Environment for Enabling Visual Supercomputing** Professor Min Chen was principal investigator in Swansea, I was co-investigator. Other members of the consortium were Swansea (David Chisnall and Nicolas Roard, postgraduates), Bangor (Professor Nigel John +2 postgrads), Leeds (Professor Ken Brodlie + 1 RA) and Manchester (Mark Riding, RA). *Co-investigator* 🔗

Research Grants (continued)

01/12/2000–30/11/2002	**£11,344, EPSRC, Modelling Objects Using Distance Fields (Voxelisation)** This was my second EPSRC grant, which was an equipment bid to support my research. *Principal Investigator* 🔗
31/03/1998–30/12/2001	**£51,423, EPSRC, Volume Graphics** This was my EPSRC "First Grant" now New Investigator Award. At the time, a first grant was around £50K covering funding for a 3 year PhD student. *Principal Investigator* 🔗

Research Publications

Patent

1. **M. Jones** and B. Spencer, "Rendering caustics in computer graphics with photon mapping by relaxation," Patent US 20120038644 A1, Feb. 17, 2010. 🔗 URL: https://patentscope.wipo.int/search/en/detail.jsf?docId=US73485872

Thesis

2. **M. W. Jones**, "The visualisation of regular three dimensional data," Ph.D. dissertation, University of Wales, University College of Swansea (Swansea University), Jul. 10, 1995. 🔗 DOI: 10.23889/SUthesis.67325

### Edited Special Issue and Conference Proceedings

3. X. Xie, **M. Jones**, and G. Tam, Eds., *Special Issue: Recognition, Tracking, and Optimisation*, vol. 122, 3, Springer, Mar. 23, 2017, pp. 409–410. 🔗 DOI: 10.1007/s11263-017-1008-8

4. X. Xie, **M. W. Jones**, and G. K. L. Tam, Eds., *Proceedings of the British Machine Vision Conference 7-10 September 2015*, Swansea, UK: BMVA Press, Sep. 7, 2015, ISBN: 1-901725-53-7. 🔗 URL: https://bmva-archive.org.uk/bmvc/2015

5. **M. W. Jones**, Ed., *TPCG '03: Proceedings of the 21st Theory and Practice of Computer Graphics 3-5 June 2003*, Birmingham, UK: IEEE Computer Society, Jun. 3, 2003, ISBN: 978-0-7695-1942-5. 🔗 URL: https://www.computer.org/csdl/proceedings/tpcg/2003/12OmNCuDzt8

6. **M. W. Jones**, Ed., *EGUK '02: Proceedings of the 20th Eurographics UK Conference 11-13 June 2002*, De Montfort University, Leicester, UK: IEEE Computer Society, Jun. 11, 2002, ISBN: 0-7695-1518-5. 🔗 URL: https://www.computer.org/csdl/proceedings/eguk/2002/12OmNyfdOIf

Journal Articles

7. J. M. Summers, **M. W. Jones**, and C. Seale, "Impact of underwater image enhancement on feature matching," *Sensors*, vol. 25, no. 22, p. 6996, Nov. 14, 2025. 🔗 DOI: 10.3390/s25226966

8. K. W. Tesema, L. Hill, **M. W. Jones**, and G. K. L. Tam, "Denoising-while-completing network (DWCNet): Robust point cloud completion under corruption," *Computers & Graphics*, vol. 132, p. 104 401, Sep. 2025. 🔗 DOI: 10.1016/j.cag.2025.104401

9. T. Patel, **M. W. Jones**, and T. Redfern, "Leveraging convolutional and graph networks for an unsupervised remote sensing labelling tool," *arXiv preprint arXiv:2508.00506*, Aug. 1, 2025. 🔗 DOI: 10.48550/arXiv.2508.00506

10. F. Jiang, S. Yang, **M. W. Jones**, and L. Zhang, "From attributes to natural language: A survey and foresight on text-based person re-identification," *Information Fusion*, vol. 118, Jun. 2025. 🔗 DOI: 10.1016/j.inffus.2024.102879

11 K. W. Tesema, L. Hill, **M. W. Jones**, M. I. Ahmad, and G. K. Tam, "Point cloud completion: A survey," *IEEE Transactions on Visualization and Computer Graphics*, vol. 30, no. 10, pp. 6880–6899, Oct. 2024. DOI: `10.1109/TVCG.2023.3344935`

12 T. Patel, **M. W. Jones**, and T. Redfern, "Manifold explorer: Satellite image labelling and clustering tool with using deep convolutional autoencoders," *Algorithms*, vol. 16, no. 10, p. 469, Oct. 4, 2023, ISSN: 1999-4893. DOI: `10.3390/a16100469`

13 O. H. Nagoor, J. Whittle, J. Deng, B. Mora, and **M. W. Jones**, "Sampling strategies for learning-based 3D medical image compression," *Machine Learning with Applications*, vol. 8, p. 100 273, Jun. 15, 2022, ISSN: 2666-8270. DOI: `10.1016/j.mlwa.2022.100273`

14 M. Ali, R. Borgo, and **M. W. Jones**, "Concurrent time-series selections using deep learning and dimension reduction," *Knowledge-Based Systems*, vol. 233, p. 107 507, Dec. 5, 2021, ISSN: 0950-7051. DOI: `10.1016/j.knosys.2021.107507`

15 A. Alqahtani, M. Ali, X. Xie, and **M. W. Jones**, "Deep time-series clustering: A review," *Electronics*, vol. 10, no. 23, p. 3001, Dec. 2, 2021, ISSN: 2079-9292. DOI: `10.3390/electronics10233001`

16 A. Alqahtani, X. Xie, and **M. W. Jones**, "Literature review of deep network compression," *Informatics*, vol. 8, no. 4, p. 77, Nov. 17, 2021, ISSN: 2227-9709. DOI: `10.3390/informatics8040077`

17 A. Alqahtani, X. Xie, **M. W. Jones**, and E. Essa, "Pruning CNN filters via quantifying the importance of deep visual representations," *Computer Vision and Image Understanding*, vol. 208–209, p. 103 220, Jul. 2021, ISSN: 1077-3142. DOI: `10.1016/j.cviu.2021.103220`

18 M. Ali, A. Alqahtani, **M. W. Jones**, and X. Xie, "Clustering and classification for time series data in visual analytics: A survey," *IEEE Access*, vol. 7, no. 1, pp. 181 314–181 338, Dec. 10, 2019, ISSN: 2169-3536. DOI: `10.1109/ACCESS.2019.2958551`

19 M. Manduhu and **M. W. Jones**, "A work efficient parallel algorithm for exact Euclidean distance transform," *IEEE Transactions on Image Processing*, vol. 28, no. 11, pp. 5322–5335, Nov. 2019, ISSN: 1057-7149. DOI: `10.1109/TIP.2019.2916741`

20 D. Man, **M. W. Jones**, D. Li, H. Zhang, and Z. Song, "Calibration of turntable based 3D scanning systems," *IEICE Transactions on Information and Systems*, vol. E102-D, no. 9, pp. 1833–1841, Sep. 1, 2019. DOI: `10.1587/transinf.2019EDP7043`

21 M. Ali, **M. W. Jones**, X. Xie, and M. Williams, "TimeCluster: Dimension reduction applied to temporal data for visual analytics," *The Visual Computer*, vol. 35, no. 6, pp. 1013–1026, May 9, 2019, ISSN: 1432-2315. DOI: `10.1007/s00371-019-01673-y`

22 J. Dearden, Y. Gong, **M. Jones**, and A. Wilson, "Using the state space of a BLV retail model to analyse the dynamics and categorise phase transitions of urban development," *Urban Science*, vol. 3, no. 1, p. 31, Mar. 11, 2019, ISSN: 2413-8851. DOI: `10.3390/urbansci3010031`

23 J. Whittle, **M. W. Jones**, and R. Mantiuk, "Analysis of reported error in Monte Carlo rendered images," *The Visual Computer*, vol. 33, no. 6, pp. 705–713, Jun. 2017, ISSN: 1432-2315. DOI: `10.1007/s00371-017-1384-7`

24 J. Whittle, R. Borgo, and **M. W. Jones**, "Implementing generalized deep-copy in MPI," *PeerJ Computer Science*, vol. 2, no. 95, Nov. 21, 2016. DOI: `10.7717/peerj-cs.95`

25 R. P. Wilson, M. D. Holton, J. S. Walker, E. L. C. Shepard, D. M. Scantlebury, V. L. Wilson, G. I. Wilson, B. Tysse, M. Gravenor, J. Ciancio, M. A. McNarry, K. A. Mackintosh, L. Qasem, F. Rosell, P. M. Graf, F. Quintana, A. Gomez-Laich, J.-E. Sala, C. C. Mulvenna, N. J. Marks, and **M. W. Jones**, "A spherical-plot solution to linking acceleration metrics with animal performance, state, behaviour and lifestyle," *Movement Ecology*, vol. 4, no. 22, pp. 1–11, Sep. 23, 2016, ISSN: 2051-3933. DOI: `10.1186/s40462-016-0088-3`

26   J. Walker, R. Borgo, and **M. W. Jones**, "TimeNotes: A study on effective chart visualization and interaction techniques for time-series data," *IEEE Transactions on Visualization and Computer Graphics (Proceedings of Information Visualization 2015)*, vol. 22, no. 1, pp. 549–558, Jan. 31, 2016. DOI: `10.1109/TVCG.2015.2467751`

27   J. S. Walker, **M. W. Jones**, R. S. Laramee, M. D. Holton, E. L. C. Shepard, H. J. Williams, D. M. Scantlebury, Nikki, J. Marks, E. A. Magowan, I. E. Maguire, O. R. Bidder, A. Di Virgilio, and R. P. Wilson, "Prying into the intimate secrets of animal lives; Software beyond hardware for comprehensive annotation in 'Daily Diary' tags," *Movement Ecology*, vol. 3, no. 29, Sep. 21, 2015. DOI: `10.1186/s40462-015-0056-3`

28   O. R. Bidder, J. S. Walker, **M. W. Jones**, M. D. Holton, P. Urge, D. M. Scantlebury, N. J. Marks, E. A. Magowan, I. E. Maguire, and R. P. Wilson, "Step by step: Reconstruction of terrestrial animal movement paths by dead-reckoning," *Movement Ecology*, vol. 3, no. 23, Sep. 15, 2015. DOI: `10.1186/s40462-015-0055-4`

29   J. Dearden, **M. W. Jones**, and A. Wilson, "DynaMoVis: Visualization of dynamic models for urban modeling," *The Visual Computer*, vol. 31, no. 6–8, pp. 1079–1088, Jun. 2015, ISSN: 0178-2789. DOI: `10.1007/s00371-015-1096-9`

30   G. I. Wilson, M. D. Holton, J. Walker, **M. W. Jones**, E. Grundy, I. M. Davies, D. Clarke, A. Luckman, N. Russill, V. Wilson, R. Plummer, and R. P. Wilson, "A new perspective on how humans assess their surroundings; Derivation of head orientation and its role in 'framing' the environment," *PeerJ*, vol. 3, e908, Jun. 18, 2015. URL: `https://doi.org/10.7717/peerj.908`

31   J. S. Walker, **M. W. Jones**, R. S. Laramee, O. R. Bidder, H. J. Williams, R. Scott, E. L. C. Shepard, and R. P. Wilson, "TimeClassifier: A visual analytic system for the classification of multi-dimensional time series data," *The Visual Computer*, vol. 31, no. 6–8, pp. 1067–1078, Jun. 1, 2015, ISSN: 0178-2789. DOI: `10.1007/s00371-015-1112-0`

32   B. Spencer, **M. W. Jones**, and I. S. Lim, "A visualisation tool used to develop new photon mapping techniques," *Computer Graphics Forum*, vol. 34, no. 1, pp. 127–140, Feb. 2015. DOI: `10.1111/cgf.12464`

33   S. A. Najim, I. S. Lim, P. Wittek, and **M. W. Jones**, "FSPE: Visualization of hyperspectral imagery using faithful stochastic proximity embedding," *IEEE Geoscience and Remote Sensing Letters*, vol. 12, no. 1, pp. 18–22, Jan. 2015, ISSN: 1545-598X. DOI: `10.1109/LGRS.2014.2324631`

34   R. Borgo, J. Dearden, and **M. W. Jones**, "Order of magnitude markers: An empirical study on large magnitude number detection," *IEEE Transactions on Visualization and Computer Graphics*, vol. 20, no. 12, pp. 2261–2270, Dec. 31, 2014, ISSN: 1077-2626. DOI: `10.1109/TVCG.2014.2346428`

35   P. A. Legg, D. H. S. Chung, M. L. Parry, R. Bown, **M. W. Jones**, I. W. Griffiths, and M. Chen, "Transformation of an uncertain video search pipeline to a sketch-based visual analytics loop," *IEEE Transactions on Visualization and Computer Graphics*, vol. 19, no. 12, pp. 2109–2118, Oct. 16, 2013, ISSN: 1077-2626. DOI: `10.1109/TVCG.2013.207`

36   D. M. Hughes, I. S. Lim, **M. W. Jones**, A. Knoll, and B. Spencer, "InK-Compact: In-Kernel stream compaction and its application to multi-kernel data visualization on general-purpose GPUs," *Computer Graphics Forum*, vol. 32, no. 6, pp. 178–188, Sep. 2013, ISSN: 1467-8659. DOI: `10.1111/cgf.12083`

37   T. McLoughlin, **M. W. Jones**, R. S. Laramee, R. Malki, I. Masters, and C. D. Hansen, "Similarity measures for enhancing interactive streamline seeding," *IEEE Transactions on Visualization and Computer Graphics*, vol. 19, no. 8, pp. 1342–1353, Aug. 2013, ISSN: 1077-2626. DOI: `10.1109/TVCG.2012.150`

38   I. C. Doidge and **M. W. Jones**, "Probabilistic illumination-aware filtering for Monte Carlo rendering," *The Visual Computer*, vol. 29, pp. 707–716, Jun. 2, 2013, ISSN: 0178-2789. DOI: `10.1007/s00371-013-0807-3`

39   B. Spencer and **M. W. Jones**, "Photon parameterisation for robust relaxation constraints," *Computer Graphics Forum*, vol. 32, no. 2pt1, pp. 83–92, May 7, 2013, ISSN: 1467-8659. DOI: `10.1111/cgf.12028`

40 B. Spencer and **M. W. Jones**, "2013 cover image: Prism," *Computer Graphics Forum*, vol. 32, no. 1, pp. 216–217, Feb. 21, 2013, ISSN: 1467-8659. DOI: 10.1111/cgf.12017

41 B. Spencer and **M. W. Jones**, "Progressive photon relaxation," *ACM Trans. Graph.*, vol. 32, no. 1, 7:1–7:11, Jan. 2013. DOI: 10.1145/2421636.2421643

42 I. Doidge, **M. W. Jones**, and B. Mora, "Mixing Monte Carlo and progressive rendering for improved global illumination," *The Visual Computer*, vol. 28, no. 6–8, pp. 603–612, Jun. 12, 2012, ISSN: 0178-2789. DOI: 10.1007/s00371-012-0703-2

43 P. Legg, D. H. S. Chung, M. L. Parry, **M. W. Jones**, R. Long, I. W. Griffiths, and M. Chen, "MatchPad: Interactive glyph-based visualization for real-time sports performance analysis," *Computer Graphics Forum*, vol. 31, no. 3, pp. 1255–1264, Jun. 7, 2012. DOI: 10.1111/j.1467-8659.2012.03118.x

44 J. Blaas, C. P. Botha, E. Grundy, **M. Jones**, R. S. Laramee, and F. H. Post, "Smooth graphs for visual exploration of higher-order state transitions," *IEEE Transactions on Visualization and Computer Graphics*, vol. 15, no. 6, pp. 969–976, Oct. 23, 2009, ISSN: 1077-2626. DOI: 10.1109/TVCG.2009.181

45 E. Grundy, **M. W. Jones**, R. S. Laramee, R. P. Wilson, and E. F. Shepard, "Visualization of sensor data from animal movement," *Eurographics/ IEEE-VGTC Symposium on Visualization (Eurovis) 2009, Computer Graphics Forum*, vol. 28, no. 2, pp. 815–822, Jun. 10, 2009, ISSN: 0167-7055. DOI: 10.1111/j.1467-8659.2009.01469.x

46 B. Spencer and **M. W. Jones**, "Into the blue: Better caustics through photon relaxation," *Eurographics 2009, Computer Graphics Forum*, vol. 28, no. 2, pp. 319–328, Mar. 30, 2009, ISSN: 0167-7055. DOI: 10.1111/j.1467-8659.2009.01371.x

47 B. Spencer and **M. W. Jones**, "Computer graphics forum 2009 cover image," *Computer Graphics Forum*, vol. 28, no. 1, pp. 172–172, Feb. 23, 2009, ISSN: 1467-8659. DOI: 10.1111/j.1467-8659.2009.01415.x

48 B. Spencer and **M. W. Jones**, "Hierarchical photon mapping," *IEEE Transactions on Visualization and Computer Graphics*, vol. 15, no. 1, pp. 49–61, Jan. 2009, ISSN: 1077-2626. DOI: 10.1109/TVCG.2008.67

49 M. Chen, S. Islam, **M. W. Jones**, P. Shen, D. Silver, S. J. Walton, and P. J. Willis, "Manipulating, deforming and animating sampled object representations," *Computer Graphics Forum*, vol. 26, no. 4, pp. 824–852, Oct. 31, 2007, ISSN: 0167-7055. DOI: 10.1111/j.1467-8659.2007.01102.x

50 **M. W. Jones**, A. Bærentzen, and M. Šrámek, "3D distance fields: A survey of techniques and applications," *IEEE Transactions on Visualization and Computer Graphics*, vol. 12, no. 4, pp. 581–599, Jul. 2006, ISSN: 1077-2626. DOI: 10.1109/TVCG.2006.56

51 S. J. Walton and **M. W. Jones**, "Volume wires: A framework for empirical non-linear deformation of volumetric datasets," *Journal of WSCG*, vol. 14, no. 1–3, pp. 81–88, Jan. 31, 2006, ISSN: 1213-6972. URL: https://markwjones.github.io/files/2006_WSCG_Volume_Wires.pdf

52 K. W. Brodlie, J. Brooke, M. Chen, D. Chisnall, A. Fewings, C. Hughes, N. W. John, **M. W. Jones**, M. Riding, and N. Roard, "Visual supercomputing – technologies, applications and challenges," *Computer Graphics Forum*, vol. 24, no. 2, pp. 217–245, Jun. 2005, ISSN: 0167-7055. DOI: 10.1111/j.1467-8659.2005.00845.x

53 **M. W. Jones**, "Distance field compression," *Journal of WSCG*, vol. 12, no. 2, pp. 199–204, Feb. 3, 2004, ISSN: 1213-6972. URL: https://markwjones.github.io/files/2004_WSCG_DF_Compression.pdf

54 T. Lewis and **M. W. Jones**, "A system for the non-linear modelling of deformable procedural shapes," *Journal of WSCG*, vol. 12, no. 2, pp. 253–260, Feb. 3, 2004, ISSN: 1213-6972. URL: https://markwjones.github.io/files/2004_WSCG_Clayworks.pdf

55 **M. W. Jones**, "Melting objects," *Journal of WSCG*, vol. 11, no. 2, pp. 247–254, Feb. 3, 2003, ISSN: 1213-6972. URL: https://markwjones.github.io/files/2003_WSCG_Melting_Objects.pdf

56 R. Satherley and **M. W. Jones**, "Hypertexturing complex volume objects," *The Visual Computer*, vol. 18, no. 4, pp. 226–235, Apr. 2002, ISSN: 0178-2789. DOI: 10.1007/s003710100143

57 R. Satherley and **M. W. Jones**, "Vector-city vector distance transform," *Computer Vision and Image Understanding*, vol. 82, pp. 238–254, Jun. 2001, ISSN: 1077-3142. 🔗 DOI: `10.1006/cviu.2001.0915`

58 R. Satherley and **M. W. Jones**, "Hypertexturing complex volume objects," *Journal of WSCG*, vol. 9, pp. 146–153, Feb. 6, 2001, ISSN: 1213-6972. 🔗 URL: `https://markwjones.github.io/files/2001_WSCG_Hypertexture.pdf`

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Teaching

FHEA	Fellow of the Higher Education Academy.
Teaching videos	▶ https://www.youtube.com/@cs-255/videos.
Experience	Over 30 years of expertise teaching university courses at years 1, 2, 3 and M, mainly Visual Computing and related courses, Data Structures and Databases. Excellent student feedback, ranking amongst the highest in the Department:

> *"[Computer Graphics] was a great module with a lot to be learned (a lot more than I thought initially). The material was always of high quality, with live examples being shown in lectures and Mark always staying in past the lecture end to answer our questions even if they weren't directly related to the content we were taught."*

Research Supervision

Completed PhD Students (13)	Tom Simpson, Richard Satherley, Chris Miller, Simon Walton, Nicolas Roard, Ben Spencer, Ian Doidge, James Walker, Joss Whittle, Mohammed Ali, Omniah Nagoor, Tulsi Patel, Floyd Hepburn-Dickins.
Current PhD Students (2)	Jason Summers, Jonathan Davies (with Gibin Powathil).
Completed MPhil Students (3)	Tim Lewis, Chris Whyley, Matt Parry.
Completed MRes Students (1)	Ed Grundy.
Past RAs (5)	Ben Spencer, Joel Dearden, ManDuhu, Ric Colasanti, Safa Najm.

External Examiner

PhD Students (8)	University of Catalunya, Barcelona, Bangor (2), Sheffield, Warwick (2), KCL, Durham.
MSc by research (2)	Leeds, Kent.