

The New Test of Time Award

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Associate Editor-in-Chief Richard Zhang announces the winners of the new IEEE CG&A Test of Time Award and outlines the selection process.

The IEEE Computer Graphics and Applications (IEEE CG&A) Test of Time (ToT) Award was initiated by Editor-in-Chief (EIC) Torsten Möller, after a successful launch of the Best Paper Award by the IEEE Computer Society Publications Board in 2019. The ToT Award recognizes regular or special issue papers published by the magazine that have made profound and long-lasting research impacts in bridging the theory and practice of computer graphics. Associate EIC Richard Zhang was put in charge for the ToT selection in 2021. He first formed an Award Selection Committee by inviting several senior researchers who have served IEEE CG&A in major editorial roles and for sustained periods of time. The inaugural committee consisted of John Dill, Dave Kasik, Kwan-Liu Ma, and Holly Rushmeier, and was chaired by Richard Zhang.

After an extensive discussion, the committee decided that the initial ToT Award, selected in 2021, would recognize up to nine papers that cover the first three decades of IEEE CG&A, 1981–2010. Then, in each subsequent year, ToT Award papers will be selected from the pool of papers published in a ten-year span ending in a year that is ten years prior to the award year. For example, the 2022 ToT Award would cover papers published in IEEE CG&A between 2003 and 2012, inclusively, while the 2023 ToT award would cover the period between 2004 and 2013. As for the selection criteria, the committee followed both objective measures (such as the number of citations, both the total and a citation breakdown over the years), as well as more subjective considerations (including quality of the work, impact on application domains, and the ability to initiate new research trends, etc.). It was also decided that survey papers would not be considered for the award selection.

After examining a large pool of papers published in the first three decades that have high citation counts,

and an anonymous voting process involving the committee members, as well as current Associate EICs Pak Chung Wong and Mike Potel, to the committee Chair, the following nine papers have been selected as winners of the inaugural IEEE CG&A Test of Time Awards (1981–2010), in chronological order:

- › H. Barr, "Superquadrics and angle-preserving transformations," 1981.
- › M. Levoy, "Display of surfaces from volume data," 1988.
- › C. Upson, T. A. Faulhaber, D. Kamins, D. Laidlaw, D. Schlegel, J. Vroom, R. Gurwitz, and A. van Dam, "The application visualization system: A computational environment for scientific visualization," 1989.
- › S. Molnar, M. Cox, D. Ellsworth, and H. Fuchs, "A sorting classification of parallel rendering," 1994.
- › R. Szeliski, "Video mosaics for virtual environments," 1996.
- › C. Rose, M. F. Cohen, and B. Bodenheimer, "Verbs and adverbs: Multidimensional motion interpolation," 1998.
- › E. Reinhard, M. Adhikhmin, B. Gooch, and P. Shirley, "Color transfer between images," 2001.
- › W. T. Freeman, T. R. Jones, and E. C. Pasztor, "Example-based super-resolution," 2002.
- › E. Foxlin, "Pedestrian tracking with shoe-mounted inertial sensors," 2005.

Congratulations to all the award winners and the time and effort of all the committee members and voters is highly appreciated!

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