

## Publications

*Donald D. Hoffman*

1982

1. Equation counting and the interpretation of sensory data. *Perception*, 11, 557-576. W. Richards, J. Rubin, D. Hoffman.  
- also appeared as *MIT Artificial Intelligence Laboratory Memo* 614
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- also appeared as *MIT Artificial Intelligence Laboratory Memo* 608
3. Inferring local surface orientation from motion fields. *Journal of the Optical Society of America*, 72, 7, 888-892. D. Hoffman.  
- also appeared as *MIT Artificial Intelligence Laboratory Memo* 592
4. Representing smooth plane curves for recognition: Implications for figure-ground reversal. *Proceedings of the National Conference of the American Association for Artificial Intelligence*, 5-8. D. Hoffman, W. Richards.  
- also appears in *Natural Computation*, W. Richards (Ed), MIT Press, 1988.
5. Interpreting time-varying images: The planarity assumption. *IEEE Workshop on Computer Vision*, 92-94. D. Hoffman.

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6. The interpretation of visual illusions. *Scientific American*, 249, 6, 154-162. D. Hoffman.  
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7. Parts of recognition. *Cognition*, 18, 65-96. D. Hoffman, W. Richards.  
- also appears as *MIT Artificial Intelligence Laboratory Memo* 732, 1983.  
- also appears in *Visual Cognition*, S. Pinker (Ed), MIT Press, 1985.  
- also appears in *From Pixels to Predicates: Recent Advances in Computational Vision*, A. Pentland (Ed), Ablex Publishing Company, 1986.  
- also appears in *Readings in Computer Vision*, M. Fischler and O. Firschein (Eds), Morgan and Kaufmann Publishers, Inc., 1987.

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12. The computation of structure from fixed-axis motion: Rigid structures. *Biological Cybernetics*, 54, 71-83. D. Hoffman, B. Bennett.

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14. Inferring three-dimensional shapes from two-dimensional silhouettes. *Journal of the Optical Society of America*, A, 4, 1168-1175. W. Richards, J. Koenderink, D. Hoffman.  
- also appears as *MIT Artificial Intelligence Laboratory Memo 840*  
- also appears in *Natural Computation*, W. Richards (Ed), MIT Press, 1988.
15. Perception and computation. *IEEE First International Conference on Computer Vision, London*, 356-364. B. Bennett, D. Hoffman, C. Prakash.
16. Minimum points and views for the recovery of three-dimensional structure. *Journal of Experimental Psychology: Human Perception and Performance*, 13, 335-343. M. Braunstein, D. Hoffman, L. Shapiro, G. Andersen, B. Bennett.
17. Shape decompositions for visual shape recognition: The role of transversality. In *Image Understanding*, W. Richards (Ed), Ablex Publishing Company, New Jersey, 215-256. B. Bennett, D. Hoffman.

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18. Perceptual representations: Meaning and truth conditions. In *Cognition and representation*, S. Schiffer and S. Steele (Eds), Westview Press, Boulder, 87-128. D. Hoffman, B. Bennett.

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20. Inferring structure from motion: A homotopy algorithm. *Proceedings of the IEEE Workshop on Visual Motion, Irvine*, 238-245. B. Bennett, D. Hoffman, J. Nicola, C. Prakash.
21. Structure from two orthographic views of rigid motion. *Journal of the Optical Society of America, A*, 6, 1052-1069. B. Bennett, D. Hoffman, J. Nicola, C. Prakash.  
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Under Review

126. Review of Modal Worlds by Whitman Richards.
127. Fitness beats truth in the evolution of perception. C. Prakash, K. Stephens, D. Hoffman, M. Singh, C. Fields.
128. Why holography? C. Fields, D. Hoffman, A. Marcianò, C. Prakash, R. Prentner.