

Bosco Siaufung Tjan

Department of Psychology and Neuroscience Graduate Program
University of Southern California
Los Angeles, CA 90089-1061
Tel: (213) 821-2953 Fax: (213) 746-9082
Web: <http://tlab.usc.edu>
E-mail: btjan@usc.edu

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EDUCATION

1/1997: Ph.D., Computer and Information Science, University of Minnesota. Studied under Professors Gordon Legge, Daniel Kersten (Psychology) and Bill Thompson (Computer Science). Dissertation (defended 12/1996): Ideal Observer Analysis of Object Recognition.

7/1992: Summer course: Computational Neuroscience–Vision, Cold Spring Harbor Laboratory.

7/1987: B.Sci. (honors), Computer Science, University of Kansas.

EMPLOYMENTS

2008 – present: Associate Professor

Department of Psychology, University of Southern California.
Voting member of the Neuroscience Graduate Program.

2001 – 2008: Assistant Professor

Department of Psychology, University of Southern California.
Voting member of the Neuroscience Graduate Program.

1998 – 2000: Research Associate

NEC Research Institute, Princeton, New Jersey.
Computational and psychophysical aspects of object recognition. Supervisors: Drs. John Oliensis, David Jacobs.

1997 – 1998: Postdoctoral Research Fellow

Max-Planck Institute for Biological Cybernetics, Tübingen, Germany.
Behavioral and computational studies of 3-D object recognition, symmetry perception, scene recognition, haptic perception, and virtual environments. Supervisor: Prof. Heinrich Bülthoff

1990 – 1996: Research Assistant

Department of Psychology, University of Minnesota.
Psychophysical and computational studies of object recognition using ideal-observer analysis. Supervisors: Profs. Gordon Legge, Daniel Kersten.

1989 – 1996: Research Assistant

Computer Science Department, University of Minnesota.
Project lead: data-flow visual query language for large-scale real-time database. Supported by the Minnesota Department of Transportation for a long-term pavement study. Supervisor: Prof. James Slagle.

1988 – 1990: Research Assistant

Computer Science Department, University of Minnesota.

Knowledge representation and automated inference on sets, plural nouns, and numerical quantifiers with a semantic network. Supervisor: Prof. James Slagle

1988 – 1990: System Administrator

Computer Science Department, University of Minnesota

Specialized in Lisp machines, Macintosh computers and Unix workstations.

TEACHING

2001 – : University of Southern California

Undergraduate courses

Cognitive Processes

Optical Illusions and Visual Computations

Graduate courses

Bayesian Approaches to Visual Perception

Introduction to Functional Magnetic Resonance Imaging

Introduction to Neural Network

Methods in Visual Psychophysics

1999, Fall: Co-instructor

Introduction to Perception. Rutgers University, Newark, with Dr. Zili Liu

1999, Spring: Co-instructor

Seminar: Computational Vision. Rutgers University, Newark, with Dr. Zili Liu

COMMITTEES

2005 – : Technical Committee (chair), Dana & David Dornsife Cognitive Neuroscience Imaging Center

2003–2005: Technical liaison committee and founding member of Dana & David Dornsife Cognitive Neuroscience Imaging Center

2008 – : Dean's Neuroscience Advisory Committee

2007 – : Graduate Committee, Psychology

2006 – 2007, 2002 – 2003: Executive Committee, Psychology

2004, 2006: Consultative Committee for department chair searches, Psychology

2002 – : Admissions Committee (chair, 2008-2009), Neuroscience Graduate Program

2006 – : Executive Committee, Neuroscience Graduate Program

2006 – : Coordinator, USC Neuroscience Graduate Seminars

2002 – : Student Advisement Committee, Neuroscience Graduate Program

JOURNAL REFEREE

Brain Research

Cognition

Cognitive Psychology
Cognitive Science
European Conference on Visual Perception
Human Brain Mapping
Investigative Ophthalmology and Vision Science
Journal of the Optical Society of America A
Journal of Vision
Journal of Experimental Psychology: Human Perception and Performance
Memory & Cognition
NeuroImage
Pattern Analysis and Machine Intelligence
Perception
Perception & Psychophysics
PNAS
Psychological Review
Psychological Science
Spatial Vision
Transactions on Applied Perception
Vision Research
Vision Sciences Society
Visual Neuroscience

JOURNAL EDITOR

Journal of Vision (Board of Editors)
Perception and Psychophysics (Consulting Editor)
Journal of the Optical Society of America A (Guest Editor)

GRANT REFEREE / STUDY SECTIONS

AFOSR (ad hoc)
Biotechnology and Biological Sciences Research Council, UK (ad hoc)
Humanities, Social Sciences and Business Studies Panel, Research Grants Council of Hong Kong (member, 9/2008-6/2010)
Le Fonds québécois de la recherche sur la nature et les technologies, Canada (ad hoc)
NIH Visual System Small Business Study Section (2004-2006)
NIH Central Visual Processing Study Section (ad hoc)
NSF (ad hoc)
The Wellcome Trust, UK (ad hoc)

OTHER SERVICES AND AWARDS

- Co-editor, *Special Issue "Ideal observers and efficiency, commemorating the 50th anniversary of Tanner & Birdsall."* *Journal of the Optical Society of America A* (2008-2009)
- Co-organizer, Symposium: *The past, present, and future of the written word*, Annual Meeting of the Vision Sciences Society (2008)
- Co-editor, *Special Issue on Crowding*, *Journal of Vision* (2006-2007)
- Cognitive Advisory Panel, Medical Division, Oxford University Press (2006-)
- Co-organizer, Symposium: *Crowding*, the European Conference on Vision Perception (2006)
- Grant recipient, APA Advanced Training Institute in fMRI (2001)
- Co-organizer, Symposium: *Optimal observers of visual perception and cognition*, The Annual Meeting of OSA (2001)
- Co-organizer, *The Annual Workshop of Object Perception and Memory* (2000)
- NEI ARVO Travel Grant recipient (1995)
- Lotus Delta Coffman Leadership / Service Appreciation (1990)
- Vice President of Hongkong China Observers (1990 – 1996)
- President of Hong Kong Student Association (1989 – 1990)
- Chair, Policy & Planning Committee, Chateau Student Housing Association (1988 – 92)

GRANTS

Extramural

- Current:** 2008/5-2012/4 (PI, R01) NEI/NIH. *Form Processing in the Periphery*. [NIH R01EY017707-01A1]
- Current:** 2005/4-2010/1 (PI, R03) NEI/NIH. *Uncertainty and the Order of Visual Processing in Cortex*. [NIH R03EY016391]
- Current:** 2008/9-2011/5 (PI of USC consortium, SBIR Phase II) NEI/NIH. *Development of a Digital Sign System for Indoor Wayfinding by Visually Impaired Pedestrians*. 3 Yrs. Lead partner: Kevin Kramer, AME. [NIH R44AG033522 / AME08-Digitalsign-37]
- Current:** 2007/10-2012/9 (co-PI) NEI/NIH. *Mid-Level Vision Systems for Low Vision*. [NIH R01EY016093; PI: Norberto Gryzwacz]
- Current:** 2007/7-2011/6 (Collaborator) NIDCD/NIH. *Visual Speech Perception and Neural Processing*. [NIH 1R01 DC008583-01A1, PI: Bernstein]
- 2004/8-2008/7 (Program Faculty) NSF, Major Research Instrumentation. *Acquisition of an fMRI Basic Research Imaging System at the University of Southern California*. [NSF 04207994, PI Beiderman]
- 2006/9-2007/8 (PI of USC consortium, SBIR Phase I) NEI/NIH. *Development of a Digital Sign System for Indoor Wayfinding by Visually Impaired Pedestrians*. Lead partner: Kevin Kramer, AME. [NIH R43EY017777 / AME06-DigitalSign-28]
- 2001/1-2006/12 (Collaborator) National Institute for Disability Research and Rehabilitation, Dept. of Education. *Wayfinding technologies for people with visual impairments: Research and development of an integrated platform*: Consortium, with Sendero LLC as lead partner. [NIDRR H133A011903, Minnesota PI: Legge]

Internal

- 2007-2008. (PI) USC Undergraduate Research Program. *Neural origin of form-vision deficit in the periphery – an fMRI study.*
- 2005-2006. (PI) USC Undergraduate Research Program. *Neural correlates of visual crowding – an fMRI study.*
- 2003-2004. (PI) USC Undergraduate Research Program. *Neural and visuomotor correlates of top-down shape perception.*
- 2002-2003. (PI) USC James H. Zumberge Faculty Research and Innovation Fund. *Differences in central and peripheral vision – a functional brain imaging study.*
- 2001-2002. (PI) USC Undergraduate Research Program. *Spatially broadband processing in central and periphery vision.*

INVENTIONS

- Legge G.E., B.S. Tjan & P.J. Beckmann. *Digital Sign System (DSS) for Indoor Wayfinding for the Visually Impaired.* Invention disclosure, July, 1999, and published description by Tjan, Beckmann, Roy, Giudice and Legge (2005).

CONSULTANCY

- The Round Table Group (consulted on intellectual property cases related to vision and visual devices)
- Wicab Inc. (consulted on the development and testing of a tactile device for vision substitution)

PUBLICATIONS

Peer-reviewed Articles († = corresponding author)

(All articles are available for download at: <http://tlab.usc.edu/publications.php>)

- Nandy, A. S., & Tjan†, B. S. (2008). Efficient integration across spatial frequencies for letter identification in foveal and peripheral vision. *Journal of Vision*, 8(13):3, 1-20, I, doi:10.1167/8.13.3.
- Zhou, J., Tjan, B. S., Zhou, Y., & Liu†, Z. (2008). Better discrimination for illusory than for occluded perceptual completions. *Journal of Vision*, 8(7):26, 1-17, <http://journalofvision.org/8/7/26/>, doi:10.1167/8.7.26.
- Li X., Lu† Z.L., Tjan B.S., Doshier B.A., & Chu W., (2008) BOLD contrast response functions identify mechanisms of covert attention in early visual areas. *PNAS*. 105: 4068-4073.
- Huang, X., Lu, H., Tjan, B. S., Zhou, Y., & Liu†, Z. (2007). Motion perceptual learning: When only task-relevant information is learned. *Journal of Vision*, 7(10):14, 1-10, <http://journalofvision.org/7/10/14/>, doi:10.1167/7.10.14.
- Nandy A.S. & Tjan† B.S. (2007). The nature of letter crowding as revealed by first- and second-order classification images. *Journal of Vision*, 7(2):5, 1–26, <http://journalofvision.org/7/2/5/>, doi:10.1167/7.2.5.
- Chung† S.T.L., & Tjan B.S. (2007). Shift in spatial scale in identifying crowded letters. *Vision Research*, 47(4):437-51.

- Pelli[†] D. G., Cavanagh P., Desimone R., Tjan B.S. & Treisman, A. (2007). Crowding: Including illusory conjunctions, surround suppression, and attention. *Journal of Vision*, 7(2):i, 1, <http://journalofvision.org/7/2/i/>, doi:10.1167/7.2.i. [unreviewed introduction to the Special Issue on Crowding]
- Tjan[†] B.S., & Nandy A. S. (2006). Classification images with uncertainty. *Journal of Vision*, 6(4), 387-413, <http://journalofvision.org/6/4/8/>, doi:10.1167/6.4.8.
- Tjan[†] B.S., Lestou V., & Kourtzi Z. (2006). Uncertainty and invariance in the human visual cortex. *J Neurophysiol* 96:1556-1568, doi:10.1152/jn.01367.2005.
- Yue[†] X., Tjan B.S., Biederman I. (2006) What makes face special? *Vision Research*, 46(22):3802-11, doi:10.1016/j.visres.2006.06.017 (Epub 2006 Aug 30).
- Lu H., Tjan, B. S., & Liu[†], Z. (2006). Shape recognition alters sensitivity in stereoscopic depth discrimination. *Journal of Vision*, 6(1), 75-86, <http://journalofvision.org/6/1/7/>, doi:10.1167/6.1.7.
- Tjan B. S., & Liu[†], Z. (2005). Symmetry impedes symmetry discrimination. *Journal of Vision*, 5(10), 888-900, <http://journalofvision.org/5/10/10/>, doi:10.1167/5.10.10.
- Tjan[†] B.S., Beckmann P.J., Roy R., Giudice N., Legge G.E. (2005) Digital Sign System for indoor wayfinding for the visually impaired. Proceedings of the First IEEE Workshop on Computer Vision Applications for the Visually Impaired, in conjunction with CVPR 2005, San Diego. IEEE Computer Society (CD-ROM).
- Chung[†] S.T.L., Levi D.M., Tjan B.S. (2005). Learning letter identification in peripheral vision. *Vision Research* 45(11):1399-1412.
- Christou C.G., Tjan B.S., & Bühlhoff. H.H. (2003). Extrinsic cues aid shape recognition from novel viewpoints. *Journal of Vision* 3(3):183-198.
- Legge[†] G.E., Hooven T.A., Klitz T.S., Mansfield J.S., Tjan B.S. (2002). Mr. Chips 2002: new insights from an ideal-observer model of reading. *Vision Research* 42(18):2219-2234.
- Chung[†] S.T.L., Legge G.E., & Tjan B.S. (2002). Spatial-frequency characteristics of letter identification in central and peripheral vision. *Vision Research* 42(18):2137-2152.
- Chung[†] S.T.L., Levi D.M., Legge G.E., & Tjan B.S. (2002). Spatial-frequency properties of letter identification in amblyopia. *Vision Research* 42(12):1571-1581.
- Tjan[†] B.S. (2001). Adaptive object representation with hierarchically-distributed memory sites. *Advances in Neural Information Processing Systems* 13, 66-72.
- Tjan[†] B.S., & Ruppertsberg A.I. (2001). The pew illusion – a real-world example of misperceived slant. *Perception* 30(1), 125-128.
- Newell[†] F.N., Ernst M.O., Tjan B.S., & Bühlhoff. H.H. (2001). Viewpoint dependence in visual and haptic object recognition. *Psychological Science* 12(1) 37-42.
- Tjan[†] B.S., & Legge G.E. (1998). The viewpoint complexity of an object recognition task. *Vision Research* 38 (15/16), 2335-50.
- Legge[†] G.E., Klitz T.S., & Tjan B.S. (1997). Mr. Chips: An ideal observer model of reading. *Psychology Review* 104 (3), 524-553.

- Dogru S., Rajan V., Rieck K., Slagle J.R., Tjan B.S., & Wang Y. (1996). A graphical data flow language for retrieval, analysis, and visualization. *Journal of Visual Languages and Computing* 7, 247-265.
- Tjan[†] B.S., Braje W.L., Legge G.E., & Kersten D. (1995). Human efficiency for recognizing 3-D objects in luminance noise. *Vision Research* 35 (21), 3053-69.
- Braje[†] W.L., Tjan B.S., & Legge G.E. (1995). Human efficiency for recognizing and detecting low-pass filtered objects. *Vision Research* 35 (21), 2955-66.
- Tjan[†] B.S., Breslow L., Dogru S., Rajan V., Rieck K., Slagle J.R., & Poliac M. (1993). A data-flow graphical user interface for querying a scientific database. In *IEEE Symposium on Visual Languages*, (pp. 49-54). IEEE Computer Society.

Book Chapters

- Tjan[†] B.S. (2002). Object Recognition. In Arbib M. (Ed.), *The Handbook of Brain Theory and Neural Networks*, 2nd Ed. (pp. 788-792) Cambridge, MA: MIT Press.
- Klitz[†] T.S., Legge G.E., & Tjan B.S. (2000). Saccade planning in reading with central scotomas: comparison of human and ideal performance. In A. Kennedy, R. Radach, D. Heller, & J. Pynte (Eds.), *Reading as a perceptual process*. New York: Elsevier.
- Tjan[†] B.S. (1996) *Ideal observer analysis of object recognition*. Doctoral Thesis, Computer Science Department, University of Minnesota.
- Tjan[†] B.S., Gardiner D., & Slagle J.R. (1992). Representing and reasoning with set referents and numerical quantifiers. In Nagle T.E., Nalge J., Gerholz L., & Eklund P. (Eds.) *Conceptual Structures – current research and practice*. Ellis Horwood.
- Gardiner[†] D., Tjan B.S., & Slagle J.R. (1992). Extending Conceptual Structures: Representation Issues and Reasoning Operations. In Nagle T.E., Nalge J., Gerholz L., & Eklund P. (Eds.) *Conceptual Structures – current research and practice*. Ellis Horwood.

Manuscripts under Review / in Preparation

- Arman A.C., Chung S.T.L., & Tjan[†] B.S. (*in revision*) Neural correlates of letter crowding in the periphery.
- Lu[†] Z.L., Li X., Tjan B.S., Doshier B.A., & Chu W., (*in preparation*) Mechanisms of covert attention: external noise exclusion and stimulus enhancement in early visual areas

Invited Talks

- Functional Magnetic Resonance Imaging of the Human Peripheral Vision. ARVO/AAO Joint Symposium: Assessing the Structure and Function of the Visual System Using Novel Imaging Technologies. (2008)
- Crowding in Peripheral Vision. Joint Symposium on Neural Computation. University of California, Irvine. (2008)
- Crowding in Peripheral Vision. Department of Psychology, the University of Hong Kong (2008)
- Crowding in Peripheral Vision. Department of Psychology, Peking University. (2008)
- A White Noise Method for Revealing Features and Feature Integration in the Periphery. Peking Normal University (2008)
- What we can and cannot see with peripheral vision? Electrical and Computer Engineering, University of Houston (2007)

Integration of visual information into objects in normal and impaired vision. Presidential Symposium. Association for Research in Otolaryngology (2007)

Form vision in the periphery – it's crowded. School of Optometry, UC Bekerley (2007)

Form vision in the periphery. Psychology, Indiana University, Bloomington (2006)

First- and second-order classification image analysis of crowding. Shiffrin Lab, Indiana University, Bloomington (2006)

Seeing what the mind's eye saw – Using Classification Images to Uncover Higher-Order Visual Features. Fourth USC Annual Vision Symposium (2006)

Seeing shapes in the visual periphery. Harbor-UCLA Medical Center (2005)

Uncertainty, signal-in-noise, and the stages of visual processing in cortex. Smith-Kettlewell Eye Research Institute (2005)

Form vision in the peripheral visual field. Department of Psychology, University of Pennsylvania (2004)

Object recognition by dynamic selection of hierarchically related representations. Invited Symposium on Features of Object Recognition, International Congress of Psychology, Beijing, China (2004)

Invariance, Expertise, and the Dynamic Selection of Representations. International Workshop on Object Recognition, Attention, and Action, University of Kyoto, Kyoto, Japan (2004)

An fMRI method for identifying the sequential stages of processing in the ventral visual pathway. 11th Joint Symposium on Neural Computation (2004).

Abilities for encoding visual forms in foveal and peripheral visual fields. College of Optometry Seminar Series, University of Houston (2003)

Adaptive object representations. Center for Neuro-Engineering & Cognitive Science, University of Houston (2003)

Invariance, representations, and expertise. Perceptual Expertise Network 7 Workshop (2003)

Studying pattern vision with letters. Department of Psychology, UC Santa Barbara (2003)

Characterizing pattern vision with letters. M.D./Ph.D. Program, Medical School, USC (2002)

Spatial frequency selectivity for letter identification. Vision Symposium, USC (2002)

Adaptive Object Representation with Hierarchically-Distributed Memory Sites. Joint Symposium on Neural Computation, Cal. Tech. (2002)

Object Recognition by Hierarchically Organized Anarchy. Department of Computer Science, USC. (2001)

Object Recognition by Hierarchically Organized Anarchy. Department of Psychology, UCLA. (2001)

Object Recognition by Hierarchically Organized Anarchy. Department of Psychology, Indiana University. (2001)

Spatial Frequency Tuning for Letter Identification. School of Optometry, Indiana University. (2001)

- Object Recognition by Anarchy. The Rutgers Series on Human and Computer Vision. Rutgers University. (2000)
- What do objects tell us about object recognition? Department of Psychology, The Chinese University of Hong Kong. (2000)
- What do objects tell us about object recognition? Department of Psychology, The University of Hong Kong. (2000)
- What do objects tell us about object recognition? Department of Psychology, University of Southern California. (2000)
- Studying human 3-D object recognition by studying the stimuli. Department of Psychology, University of Minnesota. (2000)
- Measuring image-feature utilities for recognizing 3-D objects using ideal observer analysis. Department of Psychology, University of Pennsylvania. (1999)
- The principle of sensory primacy: a framework for object recognition. Series on Human and Computer Vision. Rutgers University, New Brunswick. (1999)
- The principle of image primacy: A 'new' framework for object perception. Cognitive and Linguistic Sciences, Brown University. (1999)
- The doctrine of image primacy for object recognition. Psychology Colloquium. Rutgers University, Newark. (1998)
- An image-based perspective on object recognition. Third Annual Cognitive Science Symposium – Face and Object Recognition: Common Underlying Mechanisms? University of California, Riverside. (1998)
- Mr. Chips: An ideal observer model of reading. Fifth European Workshop on Language Comprehension, Marseille, France. (1998)
- Ideal observer analysis of object recognition. Vision Seminar. NEC Research Institute. (1996)

Conference Presentations

- Tjan B.S., Nandy A.S. (2009). [Talk] A developmental theory of crowding. 34th Annual Interdisciplinary Conference, Jackson Hole, Wyoming.
- Liu, Z., Thompson, B., Tjan, B.S. (2008) [Talk] Motion perceptual learning with suppressed and un-suppressed MT: an fMRI study. Program No. 615.5. 2008 Neuroscience Meeting Planner. Washington, DC: Society for Neuroscience. Online.
- Nandy, A., Tjan, B.S. (2008) [Talk] A computational model of visual crowding. Program No. 811.2. 2008 Neuroscience Meeting Planner. Washington, DC: Society for Neuroscience. Online.
- Bao, P., Tjan, B.S. (2008) Regularities of form-selective BOLD response in the human visual cortex. Program No. 853.10. 2008 Neuroscience Meeting Planner. Washington, DC: Society for Neuroscience. Online.
- Nandy, A. S., & Tjan, B. S. (2008). [Talk] The origin of crowding zones [Abstract]. *Journal of Vision*, 8(6):969, 969a, <http://journalofvision.org/8/6/969/>, doi:10.1167/8.6.969.
- Chung, S., Tjan, B., & Lin, Y. (2008). [Talk] Feature maps for letters [Abstract]. *Journal of Vision*, 8(6):970, 970a, <http://journalofvision.org/8/6/970/>, doi:10.1167/8.6.970.

- Tjan, B. S., Nandy, A. S., & Chung, S. T. L. (2008). Crowding in the amblyopic fovea can be unlike crowding in the normal periphery [Abstract]. *Journal of Vision*, 8(6):439, 439a, <http://journalofvision.org/8/6/439/>, doi:10.1167/8.6.439.
- Bao, P., Yue, X., & Tjan, B. S. (2008). BOLD signal response functions for object and face processing in noise [Abstract]. *Journal of Vision*, 8(6):46, 46a, <http://journalofvision.org/8/6/46/>, doi:10.1167/8.6.46.
- Sun, G., Chung, S. T. L., & Tjan, B. S. (2008). Mechanisms of crowding and learning to "uncrowd" [Abstract]. *Journal of Vision*, 8(6):438, 438a, <http://journalofvision.org/8/6/438/>, doi:10.1167/8.6.438.
- Tjan, B. & Nandy, A. (2007). [Invited talk] The nature of letter crowding as revealed by first- and second-order classification images. Symposium: "Classification Images in Vision Research." Vision Sciences Society.
- Nandy, A., & Tjan, B. (2007). [Talk] Optimal feature integration across spatial-frequencies in central and peripheral vision [Abstract]. *Journal of Vision*, 7(9):340, 340a, <http://journalofvision.org/7/9/340/>, doi:10.1167/7.9.340.
- Lu, H., Liu, Z., & Tjan, B. (2007). [Talk] The importance of skeletal information in biological motion perception revealed by ideal observer analysis [Abstract]. *Journal of Vision*, 7(9):550, 550a, <http://journalofvision.org/7/9/550/>, doi:10.1167/7.9.550.
- Lu, Z.-L., Li, X., Tjan, B. S., Doshier, B. A., & Chu, W. (2007). [Talk] Mechanisms of covert attention: External noise exclusion and stimulus enhancement in early visual areas [Abstract]. *Journal of Vision*, 7(9):783, 783a, <http://journalofvision.org/7/9/783/>, doi:10.1167/7.9.783.
- Li, X., Lu, Z.-L., Tjan, B. S., Doshier, B. A., & Chu, W. (2007). Attentional modulation of the BOLD-fMRI contrast response functions in early visual areas [Abstract]. *Journal of Vision*, 7(9):172, 172a, <http://journalofvision.org/7/9/172/>, doi:10.1167/7.9.172.
- Busey, T., Schneider, B., Wyatte, D., DeLong, J., Burkhardt, A., & Tjan, B. (2007). Are inverted faces processed at a later stage? [Abstract]. *Journal of Vision*, 7(9):618, 618a, <http://journalofvision.org/7/9/618/>, doi:10.1167/7.9.618.
- Bao, P., & Tjan, B. S. (2007). Super-summation with natural scenes – size more than matters [Abstract]. *Journal of Vision*, 7(9):963, 963a, <http://journalofvision.org/7/9/963/>, doi:10.1167/7.9.963.
- Tjan, B. S., & Nandy, A. S. (2006). [Talk] Classification images of visual crowding. Fifth Annual Summer Interdisciplinary Conference.
- Tjan, B. S., & Nandy, A. S. (2006). [Talk] 1st- & 2nd-Order Classification Image Analysis of Crowding [Abstract]. *Perception*, ECVPO6 Supplement.
- Tjan, B. S., & Nandy, A. S. (2006). [Talk] Hold it there and let's have a look: Extracting shift-invariance templates and sub-template features from signal-clamped classification images [Abstract]. *Journal of Vision*, 6(6), 1098a, <http://journalofvision.org/6/6/1098/>, doi:10.1167/6.6.1098.
- Arman, A. C., Chung, S. T. L., & Tjan, B. S. (2006). [Talk] Neural correlates of letter crowding in the periphery [Abstract]. *Journal of Vision*, 6(6), 804a, <http://journalofvision.org/6/6/804/>, doi:10.1167/6.6.804.

- Nandy, A. S., & Tjan, B. S. (2006). [Talk] Feature Integration Maps during crowding as revealed from covariance analysis of classification images [Abstract]. *Journal of Vision*, 6(6), 805a, <http://journalofvision.org/6/6/805/>, doi:10.1167/6.6.805.
- Cheung, S.-H., Legge, G. E., Chung, S. T. L., & Tjan, B. S. (2006). [Talk] Target-flanker binding releases crowding [Abstract]. *Journal of Vision*, 6(6), 807a, <http://journalofvision.org/6/6/807/>, doi:10.1167/6.6.807.
- Nandy A.S., Tjan B.S. (2006). Recovering the template of a system with position uncertainty. Society of Neuroscience.
- Tjan, B. S., & Dang, S. (2005). [Talk] The spatial interaction zone of a shapeless noise flanker [Abstract]. *Journal of Vision*, 5(8), 227a, <http://journalofvision.org/5/8/227/>, doi:10.1167/5.8.227.
- Cunningham, K. A., & Tjan, B. S. (2005). Spatial arrangement of irrelevant color in visual search [Abstract]. *Journal of Vision*, 5(8), 278a, <http://journalofvision.org/5/8/278/>, doi:10.1167/5.8.278.
- Yue, X., Tjan, B., & Biederman, I. (2005). Matching complementary faces and blobs in the gabor domain by novices, experts, and an ideal observer [Abstract]. *Journal of Vision*, 5(8), 980a, <http://journalofvision.org/5/8/980/>, doi:10.1167/5.8.980.
- Nezhad, M., Motamed, A., & Tjan, B. S. (2005). [Talk] Perceive the slow but pursue the fast – eye movement during shape-from-motion (SfM) with ambiguous stimuli [Abstract]. *Journal of Vision*, 5(8), 103a, <http://journalofvision.org/5/8/103/>, doi:10.1167/5.8.103.
- Chung S.T.L. & Tjan B. S. (2005). Spatial-Frequency Properties of Reading in Central and Peripheral Vision. ARVO.
- Tjan B.S., Chung S.T.L. (2005). [Talk] Form vision in the periphery. 30th Annual Interdisciplinary Conference, Jackson Hole, Wyoming.
- Tjan B.S. (2004) [Talk] Recovering the template in the face of uncertainty. NIPS (Neural Information Processing Systems) Workshops, Whistler, BC, Canada.
- Tjan B.S., Chung S.T.L. (2004) Form vision in the periphery. Fall Vision Meeting, Rochester, NY.
- Tjan B.S., He C., Chung S.T.L., & Schwartz N. (2004) Letter crowding in the periphery is best modeled by an increase equivalent noise. VSS.
- He C. & Tjan B.S. (2004). What crowds a letter in the periphery? VSS.
- Chung S.T.L., Tjan B.S. (2004). Crowding: tuning to the wrong spatial-frequency channels. VSS.
- Schwartz N., Tjan B.S. (2004). Spatial summation zone for gratings in natural scenes. VSS.
- Hall J., Tjan B.S., Liu Z., Lee C.K., Motamed A., & Nezhad M. (2004). Feature tracking in a stereo-kinetic display. VSS
- Chung S.T.L., Levi, D.M., & Tjan B.S (2003). Channel for letter identification is affected by spatial-frequency adaptation. American Academy of Optometry.
- Tjan B.S., Lestou V., Bülthoff H.H., & Kourtzi Z. (2003). [Talk] An fMRI method for identifying the sequential stages of processing in the ventral visual pathway. VSS.

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PROFESSIONAL AFFILIATIONS

Society of Neuroscience
 Vision Sciences Society
 Association for Research in Vision and Ophthalmology
 Psychonomic Society
 Honor Society in Computer Science Upsilon Pi Epsilon
 Honor Society Phi Eta Sigma
 Association for Computing Machinery (1984 – 1997)
 American Assoc. for Artificial Intelligence (1987 – 1997)
 IEEE Computer Society (1985 – 1997)