APCV 2024: ASIA PACIFIC CONFERENCE ON VISION 2024

PROGRAM

Days:

Wednesday, July 10th

View this program:

08:00-09:00   Coffee, tea, & snacks

LOCATION: Foyer

09:00-09:15   Session 1: Conference opening

CHAIR: *Christopher Asplund*
LOCATION: Yale-NUS College Hall

09:15-10:15   Session 2: Keynote 1: Wei Li

CHAIR: *Christopher Asplund*
LOCATION: Yale-NUS College Hall

> 09:15 *Wei Li*
> **"Seeing Blue": The S-cone Pathway in the Mammalian Retina** (abstract)

10:15-10:30   Coffee, tea, & snacks

LOCATION: Foyer

10:30-11:30   Session 3A: Talks - Facial recognition and emotional processing

CHAIRS: *Dongwon Oh* and *Charles Or*
LOCATION: Tan Chin Tuan Lecture Theatre

> 10:30 *Keisuke Shioya*, *Kazuko Hayahsi*, *Narihisa Matsumoto*, *Keiji Matsuda*, *Kenichiro Miura*, *Mark A. G. Eldridge*, *Richard C. Saunders*, *Barry J. Richmond*, *Yuji Nagai*, *Naohisa Miyakawa*, *Takafumi Minamimoto*, *Shun Katakami*, *Masato Okada*, *Kenji Kawano* and *Yasuko Sugase-Miyamoto*
> **Comparison of Facial Texture Representation in Monkey Inferior Temporal Cortex versus CNNs** (abstract)
> PRESENTER: *Keisuke Shioya*

> 10:45 *David Melcher*, *Michele Deodato* and *Tran Nguyen*
> **Characterizing the predictions and features underlying the extra-foveal preview effect for faces** (abstract)
> PRESENTER: *David Melcher*

> 11:00 *Hoo Keat Wong*, *Parvathy Santhosh* and *Gonzalo Urcelay*
> **Exploring the Impact of Encoding Tasks on Own-Race Bias in Face Recognition Through**

Eye Movements ([abstract](#))
PRESENTER: *Hoo Keat Wong*

11:15 *Joy Tong*, *Yan Zhen Tan*, *Hoo Keat Wong* and *Dongwon Oh*
National Identity Motivates Individuation in Other-Race Perception in Multiracial Societies: A Comparison of Ethnic Chinese in Singapore and Malaysia ([abstract](#))
PRESENTER: *Joy Tong*

10:30-11:30 Session 3B: Talks - Human vision and artificial systems

LOCATION: Yale-NUS College Hall

10:30 *Lindsay M. Peterson*, *Colin W. G. Clifford* and *Colin J. Palmer*
Image saliency predicts expected 'gaze' of an artificial agent ([abstract](#))
PRESENTER: *Lindsay M. Peterson*

10:45 *Yuhong Lv*, *Rumi Hisakata* and *Hirohiko Kaneko*
Pupil Response by Object-based Selective Attention and the Applicability in Communication Support System ([abstract](#))
PRESENTER: *Yuhong Lv*

11:00 *Yu Fang*, *Shigeaki Nishina* and *Randy Gomez*
Closing the Gap: Advancing Robotic Behavior Generation through Integrated Vision Science ([abstract](#))
PRESENTER: *Yu Fang*

11:15 *Shuangpeng Han*, *Ziyu Wang* and *Mengmi Zhang*
Flow Snapshot Neurons in Action: Deep Neural Networks Generalize to Biological Motion Perception ([abstract](#))
PRESENTER: *Shuangpeng Han*

11:30-12:30 Session 4A: Posters - Consciousness and metacognition (AM presenters)

LOCATION: Multi Purpose Hall

Derek Arnold
[1] The Precision Test of Metacognitive Sensitivity and Confidence Criteria ([abstract](#))

Aytac Karabay and *Daryl L. Fougnie*
[3] Evidence against levels of processing theories of visual awareness ([abstract](#))

Marina Saito, *Rina Nakajima*, *Yuno Fujita*, *Mizuki Takikawa* and *Seiichi Tsujimura*
[5] Melanopsin modulation of the background alters our attentional state ([abstract](#))

Zhou Su, *Yuyang Qiu* and *Xiaowei Ding*
[7] Metacognition in Working Memory: The Role of Prior Beliefs ([abstract](#))

11:30-12:30 Session 4B: Posters - Words, faces, and scenes (AM presenters)

LOCATION: Multi Purpose Hall

Choonghwan Jeong and *Woo Hyun Jung*
[9] The Effect of writing direction change on object-based attention in words ([abstract](#))

Jian'E Bai, *Xiaoyun Yu* and *Yiming Yang*
[11] Developmental Changes in Left-Lateralized Word-Related N170 in Chinese Children: A Longitudinal Study ([abstract](#))

Taehwan Lee, *Jeroen Boxtel*, *Myra Leung* and *Mei Boon*
[13] Effects of refractive imbalance and text difficulty on steady-state visual evoked potentials in the visual cortex and the visual word form area during reading ([abstract](#))

Rumi Hisakata, *Hiromu Yoshida* and *Hirohiko Kaneko*
[15] Effect of Pupillary Synchronization Phenomenon on Facial Impression ([abstract](#))

Kep Kee Loh, *Kyriaki Neophytou*, *Kristina Drudik*, *Kyrana Tsapkini* and *Michael Petrides*
[17] A comparative definition of the ventral frontal-temporal white matter fasciculi in the human and macaque monkey ([abstract](#))

Yaohong Wei, *Wei Zhang*, *Han Biao* and *Qi Chen*
[19] Reproducibility of Low Voltage Fast Activity (LVFA) across seizures Facilitates localizing the epileptogenic zone (EZ) ([abstract](#))

11:30-12:30 Session 4C: Posters - Motion (AM presenters)

LOCATION: [Multi Purpose Hall](#)

Suqi Huang, *Yiping Ge*, *Li Wang* and *Yi Jiang*
[21] Biological Motion Cues Modulate Visual Working Memory ([abstract](#))

Jing Gan, *Yanliang Sun*, *Xiaowei Ding*, *Bingsong Zhao* and *Youting Lin*
[23] Enhanced Semantic Encoding of Biological Motions in Working Memory: Insights from Intracranial EEG Analysis ([abstract](#))

Yasuhiro Seya and *Eiichi Mitsukura*
[25] Effects of walking on visually induced self-motion perception ([abstract](#))

Ching-Min Chang, *Cheng-Han Wu* and *Pi-Chun Huang*
[27] Comparative Analysis of Dynamic Vision in Action and Non-Action Video Gamers ([abstract](#))

Haruyuki Kojima and *Kotaro Furusawa*
[29] Sensitivity difference between left and right visual hemi-fields in the detection of global motion. ([abstract](#))
PRESENTER: *Haruyuki Kojima*

12:00-13:30 Buffet lunch

LOCATION: [Agora Café](#)

13:00-14:00 Session 5A: Posters - Consciousness and metacognition (PM presenters)

LOCATION: [Multi Purpose Hall](#)

Aliya Koishina, *Ying Zhou* and *Daryl Fougnie*
[2] Prioritization in working memory via metacognitive judgements ([abstract](#))

Sheng Lin and *Qi Chen*
[4] Causes and Consequences of losing visual consciousness: intracranial electroencephalography

evidence in humans ([abstract](#))

Junlin Jiang and *Rongrong Chen*

[6] Unraveling the Achromatic Dunhuang Murals: Visual Imagery for Deeper Understanding ([abstract](#))

Xinyue Wang, *Xin Ru Ng*, *Maekayla Yen-C Lee* and *Aung Phyo Wai Aung*

[8] Multi-Modal BCI Based Effects of Different Cognitive States on Arousal and Executive Vigilance Assessment ([abstract](#))

13:00-14:00   Session 5B: Posters - Words, faces, and scenes (PM presenters)

LOCATION: Multi Purpose Hall

Jian'E Bai, *Min Wu* and *Yiming Yang*

[10] Chinese deaf readers showed bilateral VWFA for visual word form processing ([abstract](#))

Masayoshi Nagai, *Yuma Kaneko*, *Shiho Yokoi*, *Suzuka Kawamura* and *Yufuna Yata*

[12] Visualizing Internal Representations of Two Different Faces Using Classification Images ([abstract](#))

Yui Aoki and *Kaihei Hase*

[14] Differences in production effects of different fonts for displaying lyrics in music videos. ([abstract](#))

Firdaus Moner and *Dongwon Oh*

[16] Facial Clues and Vocal Blues: Deciphering the Guilt Code ([abstract](#))

Beiyin Treedom Zhang, *Seoyoung Lee* and *Olivia S. Cheung*

[18] Distinguishing the roles of parahippocampal cortex and retrosplenial cortex in scene integration ([abstract](#))

13:00-14:00   Session 5C: Posters - Motion (PM presenters)

LOCATION: Multi Purpose Hall

Yuhui Cheng, *Yumeng Xin*, *Xiqian Lu*, *Tianshu Yang*, *Xiaohan Ma*, *Xiangyong Yuan*, *Ning Liu* and *Yi Jiang*

[20] Shared and Distinct Neural Codes for Within- and Cross-Species Biological Motion Perception in Humans and Macaque Monkeys ([abstract](#))

Eiichi Mitsukura and *Yasuhiro Seya*

[22] Effects of the number and the motion type of Gabor patches inducing illusory global rotation ([abstract](#))

Yen-Ju Chen, *Zitang Sun* and *Shin'Ya Nishida*

[24] Square versus triangular wave modulation in temporal asynchrony segmentation: an insight into underlying computation ([abstract](#))

David Yu, *Guang Yang*, *Reuben Rideaux*, *David Alais* and *Frans Verstraten*

[26] Motion Perception by a Moving Observer ([abstract](#))

Miao Cheng, *Dylan Dumay*, *Shoi Higashiyama*, *Chiahuei Tseng*, *Taku Komura* and *Yoshifumi Kitamura*

[28] Decoding Emotion from Motion: A Comparison of Spatio-Temporal Graph Convolutional Networks

(ST-GCN) and Human Accuracy ([abstract](#))

Wei Chen, *Wenzhen He*, *Yushang Huang* and *Xiaowei Ding*

[30] Intuitive knowledge of physical movements compresses subjective duration ([abstract](#))

14:00-15:00 Session 6A: Talks - Attention and eye movements

CHAIR: *Charles Or*

LOCATION: Tan Chin Tuan Lecture Theatre

- 14:00 *Shumetha Sidhu*, *Harriet Allen* and *David Keeble*
  Saccades to Texture-Defined Targets are Influenced by the Target Weight ([abstract](#))
  PRESENTER: *Shumetha Sidhu*

- 14:15 *Xin Zhang* and *Benchi Wang*
  Statistical learning begins its journey within the oculomotor system ([abstract](#))
  PRESENTER: *Xin Zhang*

- 14:30 *Satoshi Shioiri*, *Dengzhe Hou*, *Sai Sun*, *Yasuhiro Hatori* and *Chia-Huei Tseng*
  Exploring Mechanisms of Self-Initiated Attention Shifts – analysis of alpha wave - ([abstract](#))
  PRESENTER: *Satoshi Shioiri*

- 14:45 *Gabriel Rongyang Lau*, *Zihao Zhao*, *Shuyi Sun*, *Nicole Zhi Ee Ng*, *Bee Chin Ng* and *Hong Xu*
  Predicting Trust toward Media Content by Eye Movement ([abstract](#))
  PRESENTER: *Gabriel Rongyang Lau*

14:00-16:30 Session 6B: Symposium - Mechanisms of face perception

The human face has special significance as a visual cue, helping us to track the emotional reactions and attentional focus of others, shaping social trait impressions (e.g., attractiveness and trustworthiness), and helping us to identify those people familiar to us. While face processing has received much attention in vision science, the mechanisms that shape the everyday experience of faces are still only partially understood. What are the core dimensions of facial information represented in the visual system? How is this information extracted from the visual signals relayed to the brain from the retina? How do implicit processes, such as physiological responses or evolutionary pressures, align with our perceptual experience of faces? This symposium showcases recent discoveries and novel approaches to understanding the visual processing of faces in the human brain. Talks range from the use of intracranial neural recordings to uncover cortical and subcortical responses underlying face perception, data-driven approaches to defining the social dimensions observers perceive in faces, characterisation of the link between face features, perception and physiology using psychophysics and computational models, and analysis of the biological and evolutionary factors that shape face impressions. Together this provides a snapshot of exciting developments occurring at a key interface between vision science and social behaviour.

Organizer: Colin Palmer (National University of Singapore)

CHAIR: *Colin Palmer*

LOCATION: Yale-NUS College Hall

- 14:00 *Qian Wang*, *Yingying Wang*, *Guanpeng Chen*, *Ruolin Yang* and *Fang Fang*
  Unveiling subcortical and cortical mechanisms of face perception via intracranial recordings in the human brain ([abstract](#))
  PRESENTER: *Qian Wang*

14:30 *Jessica Taubert*, *Shruti Japee*, *Amanda K. Robinson*, *Houqiu Long*, *Tijl Grootswagers*, *Charles Zheng*, *Francisco Pereira* and *Chris Baker*
Uncovering the multidimensional representation underlying human dissimilarity judgements of expressive faces (abstract)
PRESENTER: *Jessica Taubert*

15:00 *Anqi Mao*, *Runnan Cao*, *Sai Sun*, *Shuo Wang* and *Dongwon Oh*
Implicit encoding of social trait perceptions: Modeling eye-gaze patterns, pupillary responses, and neuronal activity (abstract)
PRESENTER: *Dongwon Oh*

15:30 *Yong Zhi Foo*
The evolutionary basis of preferences for male facial masculinity (abstract)

16:00 *Colin Palmer* and *Gwenisha Liaw*
Eye glint as a perceptual cue in human vision (abstract)
PRESENTER: *Colin Palmer*

15:15-16:30   Session 7: Talks - Visual search

CHAIR: *Mengmi Zhang*
LOCATION: Tan Chin Tuan Lecture Theatre

15:15 *Yang Zhao*, *Haokui Xu*, *Jifan Zhou* and *Mowei Shen*
Visual Search in Regular Scenes (abstract)
PRESENTER: *Yang Zhao*

15:30 *Kin-Pou Lie*
Hierarchical and Cascaded Acquisition of Spatial Contextual Cueing (abstract)

15:45 *Yang Shen*, *Shui'Er Han* and *Mengmi Zhang*
Asymmetry in visual search persists in inattentional blindness (abstract)
PRESENTER: *Yang Shen*

16:00 *Yinfei Zhou* and *Benchi Wang*
Pre-search alpha oscillation supports learned suppression in visual search (abstract)
PRESENTER: *Yinfei Zhou*

16:15 *Peiyao Xi* and *Benchi Wang*
Detecting simply salient signals needs more effort from our brain (abstract)
PRESENTER: *Peiyao Xi*

16:30-17:00   Coffee, tea, & snacks

LOCATION: Foyer

17:00-18:00   Session 8: Keynote 2: Shinsuke Shimojo

CHAIR: *Christopher Asplund*
LOCATION: Yale-NUS College Hall

17:00 *Shinsuke Shimojo*
X' (extreme) Periphery (abstract)

19:00-20:15   Session 9: Public talk

CHAIR: *Mengmi Zhang*
LOCATION: Yale-NUS College Hall

19:00 *Jeremy Wolfe*
The "gist" of cancer and other adventures in "use-inspired basic research" (abstract)

Thursday, July 11th

View this program: with abstracts session overview talk overview

08:00-08:45   Coffee, tea, & snacks

LOCATION: Foyer

08:45-09:45   Session 10: Keynote 3: Ning Qian

CHAIR: *Hong Xu*
LOCATION: Yale-NUS College Hall

08:45 *Ning Qian*
Receptive-field remapping and space representation across saccades (abstract)

09:45-10:00   Coffee, tea, & snacks

LOCATION: Foyer

10:00-11:30   Session 11A: Talks - Imagery and consciousness

LOCATION: Tan Chin Tuan Lecture Theatre

10:00 *Alan L. F. Lee*, *Shane S. Y. Ng*, *Matthew M. H. Ng* and *Derek H. Arnold*
Perceived duration of motion aftereffects is longer for individuals with more vivid visual imagery (abstract)
PRESENTER: *Alan L. F. Lee*

10:15 *Po-Jang Hsieh* and *Yun-Jie Wu*
Neural Correlates of Unconscious Prior Experience Utilization in Disambiguating Ambiguous Stimuli (abstract)
PRESENTER: *Po-Jang Hsieh*

10:30 *Chen Liu* and *Peng Zhang*
Dissociable effects of attentional modulation and perceptual suppression in V1 (abstract)
PRESENTER: *Chen Liu*

10:45 *Derek Arnold*, *Blake Saurels* and *D. Samuel Schwarzkopf*
Predicting the modality and intensity of imagined sensations from EEG measures of oscillatory brain activity (abstract)
PRESENTER: *Derek Arnold*

11:00 *Cong Yu*
The mystery of continuous flash suppression: A two-photon calcium imaging study in macaque V1 (abstract)

11:15 *Marjan Persuh*, *Fatemeh Alhabib*, *Robert Melara* and *Yureyce Candelario*
Veridical and consciously perceived information interact in guiding behavior (abstract)
PRESENTER: *Marjan Persuh*

10:00-11:30   Session 11B: Symposium - The impact of

recent technologies on studies of multisensory integration

Multisensory integration is one of the key functions to obtain stable visual and non-visual perception in our daily life. However, it is still a challenging problem to comprehensively understand how our brain integrates different types of modal information. How does our visual system extract meaningful visual information from retinal images and integrate those with information from other sensory modalities? Recent technologies, such as virtual reality (VR) and/or augmented reality (AR), can provide scalable interactive and immersive environments to test the effects of external stimulation on our subjective experiences. What do those technologies bring to our research? We invite world-leading scientists in human perception and performance to discuss the psychological, physiological, and computational foundations of multisensory integration, and methodologies that provide insight into how non-visual sensory information enhances our visual experiences of the world.

Organizers: Hiroaki Kiyokawa (Saitama University) and Juno Kim (University of New South Wales)

CHAIRS: *Hiroaki Kiyokawa* and *Juno Kim*

LOCATION: Yale-NUS College Hall

10:00 *Hideki Tamura*
Forward and backward steps in virtual reality affect facial expression recognition (abstract)

10:30 *Michiteru Kitazaki*
Multimodal information for virtual walking (abstract)

11:00 *Stephen Palmisano*
Can we measure sensory conflict during virtual reality? And if we can, then what can we do with this information? (abstract)

11:30-12:30 Session 12A: Posters - Color, orientation, and form (AM presenters)

LOCATION: Multi Purpose Hall

Shinsuke Shimojo, *Emily Choe*, *Matilda Cederblad*, *Daw-An Wu* and *Takanobu Omata*
[1] Brain compensates for ambiguity in extreme-peripheral colors (abstract)

Defa Liang, *Rumi Hisakata* and *Hirohiko Kaneko*
[3] Does vertical size disparity affect binocular correspondence? (abstract)

Keito Sato, *Hiromi Sato* and *Yoko Mizokami*
[5] Influence of lighting distribution and direction on the impression of Japanese pottery (abstract)

Xi Yu, *Liuqing Weng*, *Yang Zheng*, *Shiqi Zhou*, *Wenjing Wang*, *Yanyu Zhang* and *Jiawei Zhou*
[7] Differential Changes of Isoluminance and Cone Contrast Sensitivity in Adult Human Amblyopia (abstract)

Kenta Nakajima and *Takehiro Nagai*
[9] The impact of temporal attitudes on physical and affective material impressions – an analysis using EEG (abstract)

11:30-12:30 Session 12B: Posters - Social and cultural influences on perception (AM presenters)

LOCATION: Multi Purpose Hall

Zhan Dai, *Miao Cheng*, *Ken Fujiwara*, *Shoi Higashiyama*, *Yoshifumi Kitamura*, *Satoshi Shioiri* and *Chia-Huei Tseng*
[11] Friendliness and Hostility in Action: Encoding/Decoding Principles and Cultural Influence (abstract)

Xiaoyue Yang, *Miao Cheng*, *Ken Fujiwara*, *Shoi Higashiyama*, *Yoshifumi Kitamura*, *Satoshi Shioiri*, *Chia-Huei Tseng* and *Yangyang Cai*

[13] Culture Matters: Performance and Perception of Human-like Body Motion between Taiwan and Japan (abstract)

PRESENTER: *Xiaoyue Yang*

Alyssa Goh and *Dongwon Oh*

[15] Exploring Mental Health Self-stigma, Self-identification, and Person Perception in a Subclinical Population (abstract)

Hasya Fatiha Zuraimy and *Ahamed Miflah Hussain Ismail*

[17] Does premenstrual syndrome affect emotion recognition? (abstract)

Tsuyoshi Yoshioka and *Jun Saiki*

[19] Parity and gender influences in mental jigsaw puzzles: A secondary eye-tracking study (abstract)

11:30-12:30   Session 12C: Posters - Perceptual learning, adaptation, and training (AM presenters)

LOCATION: Multi Purpose Hall

On Kobayashi, *Ruihao Dong* and *Aya Shiraiwa*
[21] Differences between the visual behaviors of experts and beginners in diagnosing citrus Huanglongbing (HLB) (abstract)

Niels J. Verosky and *Olivia S. Cheung*
[23] Neural correlates of musical notation reading in experts and novices (abstract)

Kanon Fujimoto and *Atsushi Wada*
[25] Neural adaptation to visual background orientation: a wide-view fMRI study (abstract)

Natasha Sia, *Qistina Nur Sabrina Ahmad Salimi*, *Shue Ling Chong*, *Hoo Keat Wong* and *Alfred Lim*
[27] The dual impact of action video gaming on useful field of view (abstract)

Hao Chen and *Sheng He*
[29] Object-contingent duration adaptation depends on the object-specific representation of duration (abstract)

Li-Ting Tsai, *Hong-Guei Chen* and *Chiun-Ho Hou*
[31] Visual Stimulation Program for Children with Severe and Profound Visual Impairment (abstract)

12:00-13:30   Buffet lunch

LOCATION: Agora Café

12:15-13:15   Session 13: Business meeting

CHAIR: *Hong Xu*

LOCATION: Tan Chin Tuan Lecture Theatre

13:00-14:00   Session 14A: Posters - Color, orientation, and form (PM presenters)

LOCATION: Multi Purpose Hall

Hikari Takebayashi
[2] The limit of spatial frequency for pooling local orientation signals (abstract)

Pei-Yin Chen and *Atsushi Wada*

[4] Population receptive field estimation in human visual cortex under wide-view stimulation (abstract)

Tatsuya Yoshizawa and *Suzuno Tanaka*

[6] Is fluorescence perception mediated by a mechanism producing the colour appearance of the surface colour mode and aperture colour mode? (abstract)

Tama Kanematsu and *Hiroyuki Ito*

[8] The effect of presentation time and luminance gradient on the glare effect (abstract)

Atsuya Hasegawa and *Kowa Koida*

[10] Estimating metamer mismatch between CIE-1931 color matching functions and CIE-2006 cone fundamentals (abstract)

Daiki Yamasaki and *Masayoshi Nagai*

[12] Effects of front and rear sounds on visual parvocellular and magnocellular processing (abstract)

13:00-14:00　　Session 14B: Posters - Social and cultural influences on perception (PM presenters)

LOCATION:　Multi Purpose Hall

Rongdi Zhang, *Miao Cheng*, *Ken Fujiwara*, *Shoi Higashiyama*, *Yoshifumi Kitamura*, *Satoshi Shioiri* and *Chia-Huei Tseng*

[14] Cultural Variance in the Emotion Perception of Body Actions by Asian Performers (abstract)

Bin Zhan, *Yujie Chen*, *Rui Wang* and *Yi Jiang*

[16] Prolonged Visual Perceptual Changes Induced by Short-term Dyadic Training: The Influential Roles of Confidence and Autistic Traits in Social Learning (abstract)

Yoshiyuki Sato, *Kazuma Fujimaki* and *Satoshi Shioiri*

[18] Different cognitive mechanisms underlie absolute and relative evaluation of images (abstract)

Ming Huang Teo and *Dongwon Oh*

[20] Empowering Attires: The Role of Clothing in Countering Stereotypes (abstract)

Zihao Zhao, *Shuyi Sun*, *Nicole Zhi Ee Ng*, *Gabriel Rongyang Lau*, *Bee Chin Ng* and *Hong Xu*

[22] Trustworthiness Judgement in Short Videos is Influenced by Speakers' Facial Emotion and Attire (abstract)
PRESENTER: *Zihao Zhao*

13:00-14:00　　Session 14C: Posters - Perceptual learning, adaptation, and training (PM presenters)

LOCATION:　Multi Purpose Hall

Siong Peng Kwek, *Christopher L. Asplund* and *Yixuan Yan*

[24] Exploring the effects of multitasking training conditions using online MATB (abstract)

Soyoung Seo and *Woo Hyun Jung*

[26] The Effect of Features of Objects and Temporal Order Context on Implicit Learning of Spatial Bias (abstract)

Ruining Guo, *Surigui Wang*, *Wu Li* and *Yin Yan*
[28] Perceptual learning and contour integration in the primate TEO (abstract)

Wenman Lin, *Yanan Du*, *Chenyan Zhou*, *Liying Zou*, *Liuqing Weng*, *Yang Zheng*, *Jiangfan Chen*, *Peng Zhang* and *Jiawei Zhou*
[30] The Impact of 40Hz Light Flicker on Monocular Deprivation Plasticity in Human Adults (abstract)

Yan-Ru Chen, *Kun-Yun Wang* and *Jun-Yun Zhang*
[32] Exposure-based Learning Improved Orientation Discrimination Under Visual Crowding (abstract)

14:00-15:15   Session 15A: Talks - Visual illusions and related phenomena

LOCATION: Black Box Theatre

14:00 *Xue Han* and *Lihong Chen*
Rhythmic TMS over human right parietal cortex strengthens visual size illusions (abstract)
PRESENTER: *Lihong Chen*

14:15 *Yuto Suzuki*, *Hiromi Sato*, *Yuta Sato*, *Hiroshi Kera* and *Yoko Mizokami*
Verification of Hermann grid illusion using machine learning (abstract)
PRESENTER: *Yuto Suzuki*

14:30 *Annada Prasad Behera* and *Subhankar Mishra*
Classical orthonormal polynomials as activation functions for implicit neural representations to preserve high frequency sharp features. (abstract)
PRESENTER: *Annada Prasad Behera*

14:45 *Chien-Chung Chen* and *Yi-Hsuan Hsu*
The inhibition of return and the eye fixation patterns for perceiving bistable figures (abstract)
PRESENTER: *Chien-Chung Chen*

15:00 *Hiroshi Ashida*, *Yoshitaka Kaneno* and *Achille Pasqualotto*
Interoception affects the moving rubber hand illusion (abstract)
PRESENTER: *Hiroshi Ashida*

14:00-15:00   Session 15B: Talks - Working memory: behavior and models

CHAIR: *Shih-Cheng Yen*
LOCATION: Tan Chin Tuan Lecture Theatre

14:00 *Garry Kong* and *Lisa Miyahara*
The Effect of Dynamic Visuospatial Working Memory on Motor Control (abstract)
PRESENTER: *Garry Kong*

14:15 *Ilmari Kurki*
Second responses in visual working memory experiment (abstract)

14:30 *Ankur Sikarwar* and *Mengmi Zhang*
Decoding the Enigma: Benchmarking Humans and AIs on the Many Facets of Working Memory (abstract)

PRESENTER: *Mengmi Zhang*

14:45 *Chi Zhang*, *Yuanxiu Zhao*, *Mowei Shen*, *Hui Chen* and *Zaifeng Gao*
Visual Working Memory Load Impairs Detection Sensitivity: A Re-entry Load Account (abstract)
PRESENTER: *Chi Zhang*

15:15-16:30   Session 16: Talks - Working memory: neural mechanisms

CHAIR: *Shih-Cheng Yen*

LOCATION: Tan Chin Tuan Lecture Theatre

15:15 *Yang Cao* and *Benchi Wang*
Neural mechanisms of feature binding in working memory (abstract)
PRESENTER: *Yang Cao*

15:30 *Sirui Chen* and *Benchi Wang*
Neural Substrates of Working Memory Maintenance (abstract)
PRESENTER: *Sirui Chen*

15:45 *Ying Zhou*, *Clayton Curtis*, *Daryl Fougnie* and *Kartik Sreenivasan*
Linking behavioral and neural estimates of trial-by-trial working memory information content (abstract)
PRESENTER: *Ying Zhou*

16:00 *Zhehao Huang* and *Benchi Wang*
Unveiling the neural dynamic of the interaction between working memory and long-term memory (abstract)
PRESENTER: *Zhehao Huang*

16:15 *Yuanyuan Zhang* and *Benchi Wang*
Different states of hippocampus during the formation of new memories (abstract)
PRESENTER: *Yuanyuan Zhang*

15:30-16:30   Session 17: Talks - Aesthetics and philosophy of vision

CHAIR: *Takashi Obana*

LOCATION: Black Box Theatre

15:30 *Zhi Cao* and *Rongrong Chen*
The Significance of Complexity in the Appreciation of Abstract Artworks and Music (abstract)
PRESENTER: *Rongrong Chen*

15:45 *Sascia Pellegrini*
Chthulucene visions: the contemporary obsession with seeing, and the denial of the tangible (abstract)

16:00 *Yung-En Chou*, *Li-Shu Lu* and *Chi-Sen Hung*
A Study on the Relationship between Poster Image Design Techniques and Topics (abstract)
PRESENTER: *Yung-En Chou*

16:15 *Songyang Liao* and *Tatsuya Yoshizawa*
Modeling color preference based on the distance from the memory colors in a color space (abstract)

PRESENTER: *Songyang Liao*

16:30-17:00   Coffee, tea, & snacks

LOCATION: Agora Café

17:00-18:00   Session 18: Keynote 4: Li Zhaoping

Talk delivered via Zoom.

CHAIR: *Hong Xu*

LOCATION: Black Box Theatre

17:00 *Zhaoping Li*
VBC: the V1 Saliency Hypothesis, the Attentional Bottleneck, and the Central-Peripheral Dichotomy (abstract)

Friday, July 12th

View this program: with abstracts   session overview   talk overview

08:00-09:00   Coffee, tea, & snacks

LOCATION: Foyer

09:00-10:00   Session 19: Keynote 5: Stephanie Goodhew

Talk delivered via Zoom.

CHAIR: *Christopher Asplund*

LOCATION: Yale-NUS College Hall

09:00 *Stephanie Goodhew*
Subjective Cognitive Failures: What Can They Tell Us? (abstract)

10:00-10:15   Coffee, tea, & snacks

LOCATION: Foyer

10:15-11:30   Session 20A: Talks - Attentional capture

LOCATION: Yale-NUS College Hall

10:15 *Rongqi Lin*, *Ole Jensen*, *Jan Theeuwes* and *Benchi Wang*
Neural evidence for attentional capture by salient distractors (abstract)
PRESENTER: *Rongqi Lin*

10:30 *Takashi Obana*, *Maleyka Mammadova* and *Christopher L. Asplund*
Surprise capture and contingent capture reflect independent attentional influences (abstract)
PRESENTER: *Takashi Obana*

10:45 *Yulong Ding* and *Zhe Qu*
Perceptual learning induces attentional capture by a color-orientation conjunction only if it contains spatial configuration (abstract)
PRESENTER: *Yulong Ding*

11:00 *Jingwen Chai*, *Takashi Obana*, *Maleyka Mammadova* and *Christopher L. Asplund*
Investigations on the Influence of Reward Values on Feature Gain Control in Temporal

Attentional Capture ([abstract](#))
PRESENTER: *Jingwen Chai*

11:15 *Zhe Qu* and *Yulong Ding*
Susceptibility to contingent attentional capture predicts high visual working memory capacity ([abstract](#))
PRESENTER: *Zhe Qu*

10:15-11:00   Session 20B: Talks - Vision and language

LOCATION: Tan Chin Tuan Lecture Theatre

10:15 *Clarence Lee*, *Zijun Lin*, *M Ganesh Kumar* and *Cheston Tan*
Leveraging synthetic datasets to advance visual grounding on natural language concept comprehension. ([abstract](#))
PRESENTER: *M Ganesh Kumar*

10:30 *Kashi Li* and *Takehiro Nagai*
Removing attention deteriorates the judgment of large color differences ([abstract](#))
PRESENTER: *Kashi Li*

11:30-12:30   Session 21A: Posters - Visual illusions and perception (AM presenters)

LOCATION: Multi Purpose Hall

Shinji Nakamura
[1] Effects of vertical visual oscillations rendered by apparent motion illusion on visually induced self-motion perception ([abstract](#))

Sheryl de Jesus, *Hiroyuki Ito* and *Tama Kanematsu*
[3] The Effect of Prediction on the Visual Saltation Illusion ([abstract](#))

Natsumi Tsuji, *Tama Kanematsu* and *Kowa Koida*
[5] Optical factors contributing hue and luminance dependency of color assimilation illusion ([abstract](#))

Kentaro Usui and *Akiyoshi Kitaoka*
[7] Extension of Morinaga's paradox ([abstract](#))

Shujuan Ye, *Wen Wang* and *Xiaowei Ding*
[9] Superstitious Inference from Irrelevant Features ([abstract](#))

11:30-12:30   Session 21B: Posters - Visual attention and memory (AM presenters)

LOCATION: Multi Purpose Hall

Takefumi Hayashi, *Ai Kato*, *Risa Ibaragi* and *Yuri Harada*
[11] A study of the gaze-induction effect in Mucha's artworks ([abstract](#))

Yun Da Chua, *Alvin P. H. Wong* and *Christopher L. Asplund*
[13] Effective coordination across major brain network regions, not intra-network function, underlies successful performance of two visual executive function tasks. ([abstract](#))

Yichen Qian and *Camilo Libedinsky*
[15] The Neural Bases of Dynamic Working Memory in the Primate Prefrontal Cortices ([abstract](#))

Yongseong Lee and *Su Keun Jeong*
[17] Visual Attention modulates Boundary Transformation (abstract)

Mark Wei Lun Seow, *Roger Herikstad* and *Camilo Libedinsky*
[19] Non-human primate premotor cortex neuron populations encode timing and anticipation of eye movements (abstract)

Dengzhe Hou, *Sai Sun*, *Yasuhiro Hatori*, *Chia-Huei Tseng* and *Satoshi Shioiri*
[21] Exploring Mechanisms of Self-Initiated Attention Shifts – analysis of theta wave (abstract)

11:30-12:30   Session 21C: Posters - Multisensory and motor (AM presenters)

LOCATION: Multi Purpose Hall

Pi-Chun Huang and *Yi-Chuan Chen*
[23] Serial Dependence in Intersensory Dominance is Repulsive and Asymmetrical (abstract)

Yu Nakajima and *Hiroshi Ashida*
[25] Sensory Dominance in Target Detection and Discrimination Tasks (abstract)

Yumiko Otsuka, *Katsumi Watanabe* and *Colin Clifford*
[27] Developmental change in the integration of head and eye information in eye gaze perception (abstract)

Teng Leng Ooi and *Zijiang He*
[29] A theoretical framework for space perception based on implicit knowledge of the ground surface (abstract)

12:00-13:30   Buffet lunch

LOCATION: Agora Café

13:00-14:00   Session 22A: Posters - Visual illusions and perception (PM presenters)

LOCATION: Multi Purpose Hall

Hiroyuki Ito, *Tama Kanematsu*, *Rio Furukawa*, *Tohko Koyamate*, *Sheryl Anne Manaligod De Jesus* and *Moyou Jiang*
[2] The kinetic Orbison illusion and its variants (abstract)

Kanako Mori and *Takefumi Hayashi*
[4] A signboard with a reverse perspective illusion - Verification of the strength of the illusion using VR- (abstract)

Yanni Zhang, *Biao Han*, *Qi Chen* and *Lu Shen*
[6] The role of alpha phase in bistable perception: an iEEG study (abstract)

Enzhen Zhang and *Woo Hyun Jung*
[8] The Effect of the Intersection Locations of Diagonal Lines with Three-Dimensional Objects on the Poggendorff Illusion (abstract)

Moyou Jiang, *Hiroyuki Ito* and *Tama Kanematsu*
[10] Perceptual filling-in of the blind spot using surrounding filled-in information (abstract)

13:00-14:00   Session 22B: Posters - Visual attention and memory (PM presenters)

LOCATION: Multi Purpose Hall

Yujeong Kim and *Su Keun Jeong*
[12] Faster spontaneous encoding response time indicates higher image memorability (abstract)

Wei Sheng Chee and *Camilo Libedinsky*
[14] Interplay Between Dorsolateral Prefrontal Cortex and Frontal Eye Fields in Working Memory and Saccade Preparation (abstract)

Ho Ming Chan and *Jeffrey Saunders*
[16] Can knowing the upcoming distractor image or category reduce the emotion-induced blindness effect from erotic images? (abstract)

Philip Tseng, *Prangya Parimita Sahu* and *Richard Wang*
[18] Enhancing Visual Working Memory in Schizophrenia: Effects of Frontoparietal Theta tACS in Low-Performing Individuals (abstract)

Amithavikram Hathibelagal and *Jeffrey Paul*
[20] Visual search performance in individuals with colour vision deficiency using colour vision aids (abstract)

13:00-14:00   Session 22C: Posters - Multisensory and motor (PM presenters)

LOCATION: Multi Purpose Hall

Izumi Ayase, *Masaki Mori* and *Kazumasa Tamura*
[22] SNS advertisement of "acne" facilitates prepotent motor responses rather than that of "moisturizing" (abstract)

Liang-Sheng Chang and *Pi-Chun Huang*
[24] Seeing and Touching Shapes are Different: Taking Shape–Color Correspondences for Example (abstract)

Keisuke Tsujimoto and *Kimihiro Yananaka*
[26] Eye-tracking in driving simulators using head-mounted displays (abstract)

Satoru Abe and *Eiji Kimura*
[28] Cognitive Flexibility During Walking and Running: Insights from an Anti-Saccade Task (abstract)

Yasuhiro Hatori, *Yu Fang*, *Masaki Emoto*, *Kazuki Hiranai* and *Satoshi Shioiri*
[30] Investigation of head and eye coordination while watching natural scene movies on ultrahigh-definition display (abstract)

14:00-15:15   Session 23A: Talks - Ocular problems and treatment

LOCATION: Tan Chin Tuan Lecture Theatre

14:00 *Jinli Zhu*, *Yufan Feng* and *Fang Hou*
Dynamics of Binocular Interaction in Anisometropic Amblyopia Revealed by Classification Image (abstract)
PRESENTER: *Jinli Zhu*

14:15 *Premnandhini Satgunam* and *Shakthi Pradheepa Periakaruppan*
Measuring fixation stability to monitor anti-suppression vision therapy in a patient with amblyopia (abstract)
PRESENTER: *Premnandhini Satgunam*

14:30 *Silvia C. Finnemann*, *Mari Teli* and *Gavin J Gyimesi*
Dystrophy or acute injury of murine retinal pigment epithelium triggers retinal inflammation independently of and prior to photoreceptor apoptosis (abstract)
PRESENTER: *Silvia C. Finnemann*

14:45 *Maria Lev*, *Ziv Siman-Tov*, *Oren Kadosh*, *Marzouq Yasin* and *Uri Polat*
Neuroplasticity training overcomes impaired retinal input and restores functional vision in low myopia, presbyopia and age-related macular degeneration (abstract)
PRESENTER: *Maria Lev*

15:00 *Jeroen van Boxtel*, *Pratik Raul* and *Faran Sabeti*
Monocular contributions to stochastic resonance (abstract)
PRESENTER: *Jeroen van Boxtel*

14:00-16:30   Session 23B: Symposium - Regularity and (un)certainty: extracting implicit sensory information in perception and action

How do we track the relations among sensory items in the surroundings? With our sensory systems bombarded by immeasurable external information, it is hard to envision a willful, deliberate, and moment-by-moment sensory tracking mechanism. Instead, here we seek to illustrate how our behavior is affected by implicitly tracked regularity and the accompanying (un)certainty. We will provide evidence from a wide spectrum of studies, encompassing interactions among vision, audition, and motor systems. Shao-Min (Sean) Hung first establishes implicit regularity tracking in a cue-target paradigm. His findings suggest that regularity tracking between sensory items relies very little on explicit knowledge or visual awareness. However, how we derive meaningful results requires careful work. Philip Tseng's work expands on this point and demonstrates how visual statistical learning can be influenced by task demand. These results advocate the importance of experimental design in searching for implicit extraction of sensory information. Similar tracking of perceptual statistics extends to the auditory domain, as evidenced by Hsin-I (Iris) Liao's work. Her research shows how pupillary responses reflect perceptual alternations and unexpected uncertainty in response to auditory stimulations. Next, we ask how our behavior reacts to such regularities. Using a motor learning paradigm, Nobuhiro Hagura reveals that different visual uncertainty can tag different motor memories, showing that uncertainty provides contextual information to guide our movement. Finally, David Alais uses continuous measurement of perception during walking to reveal a modulation occurring at the step rate, with perceptual sensitivity optimal in the swing phase between steps. Together, our symposium aims to paint a multifaceted picture of perceptual regularity tracking, with the (un)certainty it generates. These findings reveal the ubiquitous nature of implicit sensory processing in multiple sensory domains, integrating perception and action.

Organizers: Shao-Min (Sean) Hung (Waseda University) and Hsin-I (Iris) Liao (NTT Communication Science Laboratories)

CHAIRS: *Hsin-I Liao* and *Shao-Min Hung*
LOCATION: Yale-NUS College Hall

14:00 *Shao-Min Hung* and *Akira Sarodo*
Tracking probability in the absence of awareness (abstract)
PRESENTER: *Shao-Min Hung*

14:25 *Hsin-I Iris Liao*
Auditory information extraction revealed by pupil-linked arousal ([abstract](#))

14:50 *Philip Tseng*
Importance of task demand in measuring implicit learning ([abstract](#))

15:15 *Nobuhiro Hagura*
Decision uncertainty as a context for motor memory ([abstract](#))

15:40 *David Alais* and *Matthew Davidson*
Seeing the world one step at a time: perceptual modulations linked to the gait cycle ([abstract](#))
PRESENTER: *David Alais*

15:30-16:30   Session 24: Talks - Comparative vision

LOCATION: Tan Chin Tuan Lecture Theatre

15:30 *Ke Xin Ang* and *Philip Johns*
Colugos don't glow, but should they? On UV-induced fluorescence in mammals ([abstract](#))
PRESENTER: *Philip Johns*

15:45 *Benoit Cottereau*
Stereoscopic vision in biological and artificial systems with spiking neural networks ([abstract](#))

16:00 *Seiichi Tsujimura*, *Marina Saito* and *Tiberiu Iurco*
Spatial tuning of the receptive field of human parasol retinal ganglion cells with increased melanopsin stimulation ([abstract](#))
PRESENTER: *Seiichi Tsujimura*

16:30-17:00   Coffee, tea, & snacks

LOCATION: Foyer

17:00-18:00   Session 25: Keynote 6: Jeremy Wolfe

CHAIR: *Mengmi Zhang*
LOCATION: Yale-NUS College Hall

17:00 *Jeremy Wolfe*
How did I miss that? "Normal Blindness" in the lab, the clinic, and the world ([abstract](#))

18:30-22:30   Conference banquet

LOCATION: Siri House