Peer-reviewed Journals / Conferences

8. **Ebihara, A.F.**, Sakurai, K., and Imaoka, H.
   Efficient Face Spoofing Detection with Flash.
   Manuscript in preparation.

7. **Ebihara, A.F.**, Miyagawa, T., Sakurai, K., and Imaoka, H.
   Sequential Density Ratio Estimation for Simultaneous Optimization of Speed and Accuracy. [arXiv]
   Manuscript under review.

6. Imaoka, H., Hashimoto, H., Takahashi, K., **Ebihara, A.F.**, Liu, J., Hayasaka, A., Morishita, Y., and Sakurai, K.
   The Future of Biometrics Technology: from Face Recognition to Related Applications.
   Manuscript under review.

5. **Ebihara, A.F.**, Sakurai, K., and Imaoka, H.
   Specular- and Diffuse-reflection-based Face Spoofing Detection for Mobile Devices. [arXiv]
   [IJCB2020]
   International Joint Conference on Biometrics (IJCB) 2020, Virtual conference.
   *IJCB 2020 Google PC Chairs Choice Best Paper Award

4. Caruso, V.C., Mohl, J.T., Glynn, C., Jee, J., Willets, S.M., Azman, A., **Ebihara, A.F.**, Estrada, R., Freiwald, W.A., Tokdar, S.T., and Groh, J.M.
   Single Neurons May Encode Simultaneous Stimuli by Switching Between Activity Patterns.
   [NatComm]
   Nature Communications 9, 2715 (2018).

3. **Ebihara, A.F.**, Hocevar, A., Magnasco M.O., and Freiwald, W.A.
   Multi-object Scene Encoding in Face-selective Cortex.
   Manuscript in preparation.

2. Leibo, J.Z., Anselmi, F., Mutch J., **Ebihara, A.F.**, Freiwald, W.A., and Poggio, T.
   View-invariance and Mirror-symmetric Tuning in a Model of the Macaque Face-processing System.
   Cosyne 2013, Salt Lake City, UT, USA.

1. **Ebihara, A.F.** and Freiwald, W.A.
   Representation of Multiple Stimuli in the Macaque Middle Face Patch.
   Cosyne 2012, Salt Lake City, UT, USA.

Non-peer-reviewed Presentations

13. Kawai, H., Watanabe, D., Ito, K., Aoki, T., **Ebihara, A.F.**, Sakurai, K., and Imaoka, H.
    Spoofing Detection for the Face Authentication Using Deep Learning.
    2019 Symposium on Cryptography and Information Security. (IEICE SCIS) Otsu city, Shiga, Japan.

12. **Ebihara, A.F.**, Sakurai, K., and Imaoka, H.
Flash Reflection-based Face Liveness Detection for Mobile Devices.
The Eighth Symposium on Biometrics, Recognition and Authentication (IEICE SBRA2018), Iidabashi, Tokyo, Japan.

11. **Ebihara, A.F.**, Sakurai, K., and Imaoka, H.
Spoofing Detection with a Monocular Camera using Flash Reflection.
IEICE Bio-X Study Group 2018. Kanazawa city, Ishikawa, Japan.

10. Caruso, V.C., **Ebihara, A.F.**, Milewski A., Tokdar, S., Freiwald W.A., and Groh J.M.
Is Multiplexing a General Strategy for Encoding Multiple Items in the Brain? Evidence From a Visual Cortical Face Area and a Subcortical Auditory Area.
Society for Neuroscience annual meeting 2015, Poster session on Oscillations and synchrony: Unit studies. Chicago, IL.

9. **Ebihara, A.F.**
A Circuit Mechanism for Explicit Multi-stimulus Coding.
JMSA New York Life Science Forum 2015, New York, NY.

8. **Ebihara, A.F.**, Hocevar, A., Magnasco M.O., and Freiwald, W.A.
Representation of Multiple Stimuli by Face Selective Neurons in the Macaque Temporal Lobe.
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7. **Ebihara, A.F.**, Hocevar, A., Magnasco M.O., and Freiwald, W.A.
Representations of Multiple Stimuli by Face-selective Neurons in the Macaque Temporal Lobe.
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6. **Ebihara, A.F.**, Hocevar, A., Magnasco M.O., and Freiwald, W.A.
Representations of Multiple Stimuli in the Macaque Temporal Lobe.
Cold Spring Harbor Symposium on Quantitative Biology 2014: Cognition, Cold Spring Harbor, NY.

5. **Ebihara, A.F.**, Leibo, J.Z., Poggio, T., and Freiwald, W.A.
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4. **Ebihara, A.F.** and Freiwald, W.A.
Representations of Multiple Stimuli in the Macaque Face Patches.
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3. **Ebihara, A.F.**, Tsao, D.Y., and Freiwald, W.A.
Representation of Multiple Stimuli by Face-selective Neurons in the Macaque Temporal Lobe.
Society for Neuroscience annual meeting 2011, Poster session on Face Processing in Extrastriate Cortex,Session 487.06/OO36, Washington, DC.

2. **Ebihara, A.F.**, Tsao, D.Y., and Freiwald, W.A.
Representations of Multiple Objects in the Macaque Face Processing System.
Society for Neuroscience annual meeting 2010, Nanosymposium on Encoding of Visually Presented Faces II, Session 834.4, San Diego, CA.

1. Nishizumi, H., Nakayama, H, **Ebihara, A.F.**, and Sakano, H.
Odorant Receptor Gene Choice in the Mouse Olfactory System.
The 31st Annual Meeting of the Japan Neuroscience Society, 2008, Oral session O1-H04, Tokyo, Japan.

Ph.D. Thesis

Ebihara, A.F.
Normalization Among Heterogeneous Population Confers Stimulus Discriminability on the Macaque Face Patch Neurons.
2015 Student Theses and Dissertations. 278. [link]

Ph.D. advisor: Dr. Winrich A. Freiwald
Ph.D. co-advisor: Dr. Marcelo Magnasco
Faculty advisory committee: Dr. Cornelia I. Bargmann and Dr. Charles D. Gilbert

Patents

	Patent number	Authors and applied year	Description	Status
[31]	N.A.	Watanabe, K., Miyagawa, T., **Ebihara, A.F.**, 2021.	Undisclosed (SPRT-related)	in prep.
[30]	N.A.	Watanabe, K., Miyagawa, T., **Ebihara, A.F.**, 2021.	Undisclosed (SPRT-related)	in prep.
[29]	N.A.	Miyagawa, T., **Ebihara, A.F.**, 2021.	Undisclosed (SPRT-related)	in prep.
[28]	N.A.	Miyagawa, T., **Ebihara, A.F.**, 2021.	Undisclosed (SPRT-related)	in prep.
[27]	N.A.	**Ebihara, A.F.**, Miyagawa, T., 2021.	Undisclosed (SPRT-related)	in prep.
[26]	N.A.	**Ebihara, A.F.**, Miyagawa, T., 2020.	Undisclosed (SPRT-related)	in prep.
[25]	N.A.	**Ebihara, A.F.**, Miyagawa, T., 2020.	Undisclosed (SPRT-related)	in prep.
[24]	N.A.	**Ebihara, A.F.**, Miyagawa, T., 2020.	Undisclosed (SPRT-related)	in prep.

[23]	JP2020/034545	**Ebihara, A.F.**, Miyagawa, T., 2020.	Undisclosed (SPRT-related)	pending
[22]	JP2020/033474	Miyagawa, T., **Ebihara, A.F.**, 2020.	Undisclosed (SPRT-related)	pending
[21]	JP2020/018236	Miyagawa, T., **Ebihara, A.F.**, 2020.	Undisclosed (SPRT-related)	pending
[20]	JP2020/018889	Miyagawa, T., **Ebihara, A.F.**, 2020.	Undisclosed (SPRT-related)	pending
[19]	JP2020/018888	**Ebihara, A.F.**, 2020.	Undisclosed (SPRT-related)	pending
[18]	JP2020/018887	**Ebihara, A.F.**, 2020.	Undisclosed (SPRT-related)	pending
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[16]	JP2020/018883	Ka Pik, L.,**Ebihara, A.F.**, 2020.	Undisclosed (SPRT-related)	pending
[15]	JP2020/018884	**Ebihara, A.F.**, 2020.	Undisclosed (SPRT-related)	pending
[14]	特願2019-136145	**Ebihara, A.F.**, 2019.	Luggage weight detection from a video	pending
[13]	JP2019/012793	**Ebihara, A.F.**, 2019.	Binary- and multi-class-Nth-order SPRT	valid
[12]	US16/971460	**Ebihara, A.F.**, 2020.	Face spoofing detection with diffusion reflection	pending
[11]	特願2020-501933	**Ebihara, A.F.**, 2020.	Face spoofing detection with diffusion reflection	pending
[10]	JP2018/006562	**Ebihara, A.F.**, 2018.	Face spoofing detection with diffusion reflection	expired
[9]	EP18907036.0	**Ebihara, A.F.**, 2020.	Face spoofing detection with specular reflection	pending
[8]	US16/964877	**Ebihara, A.F.**, 2020.	Face spoofing detection with specular reflection	pending
[7]	特願2020-501932	**Ebihara, A.F.**, 2020.	Face spoofing detection with specular reflection	pending
[6]	JP2018/006561	**Ebihara, A.F.**, 2018.	Face spoofing detection with specular reflection	expired
[5]	EP18869108.3	**Ebihara, A.F.**, 2020.	Face 3D-ness detection on a mobile device	pending
[4]	US16/755983	**Ebihara, A.F.**, 2020.	Face 3D-ness detection on a mobile device	pending
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[2]	JP2018/038898	**Ebihara, A.F.**, 2018.	Face 3D-ness detection on a mobile device	expired
[1]	特願2017-203669	**Ebihara, A.F.**, 2017.	Face 3D-ness detection on a mobile device	expired