*Centre National de la Recherche Scientifique*

# Liste complète des publications

Laurent Perrinet

*Pour évaluation par les sections du Comité national*



| Équipe NEural OPerations in TOpographies (NeOpTo) |
| --- |
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(Liste modifiée le 07/07/2020 pour préciser les publications acceptées)

# 1 Articles de revues en cours de révision

A46 Victor Boutin, Angelo Franciosini, Frédéric Y Chavane, Franck Ruffier et Laurent U Perrinet. « Sparse Deep Predictive Coding captures contour integration capabilities of the early visual system ». In : *Submitted* (12 mai 2020). URL : https://arxiv.org/abs/1902.07651

# 2 Articles de revues internationales à comité de lecture

*2020*

A45 Victor Boutin, Angelo Franciosini, Franck Ruffier et Laurent U Perrinet. « Effect of top-down connections in Hierarchical Sparse Coding ». In : *Neural Computation* (4 fév. 2020). URL : https://laurentperrinet.github.io/publication/boutin-franciosini-ruffier-perrinet-20-feedback/

A44 Emmanuel Daucé, Pierre Albigès et Laurent U Perrinet. « A dual foveal-peripheral visual processing model implements efficient saccade selection ». In : *Journal of Vision* (5 juin 2020). DOI : 10.1101/725879

A43 Chloé Pasturel, Anna Montagnini et Laurent U Perrinet. « Humans adapt their anticipatory eye movements to the volatility of visual motion properties ». In : *PLoS Computational Biology* (26 jan. 2020). DOI : 10.1371/journal.pcbi.1007438. URL : https://doi.org/10.1371/journal.pcbi.1007438

*2019*

A42 Laurent U Perrinet. « An adaptive homeostatic algorithm for the unsupervised learning of visual features ». In : *Vision* 3.3 (2019), p. 47. DOI : 10.3390/vision3030047. URL : https://spikeai.github.io/HULK/

A41 Cesar U Ravello, Laurent U Perrinet, Maria-José Escobar et Adrián G Palacios. « Speed-Selectivity in Retinal Ganglion Cells is Sharpened by Broad Spatial Frequency, Naturalistic Stimuli ». In : *Scientific Reports* 9.1 (24 jan. 2019). DOI : 10.1038/s41598-018-36861-8. URL : https://doi.org/10.1038%2Fs41598-018-36861-8

A40 Sandrine Chemla, Alexandre Reynaud, Matteo diVolo, Yann Zerlaut, Laurent U Perrinet, Alain Destexhe et Frédéric Y Chavane. « Suppressive waves disambiguate the representation of long-range apparent motion in awake monkey V1 ». In : *Journal of Neuroscience* 2792 (18 mar. 2019), p. 18. DOI : 10.1523/JNEUROSCI.2792-18.2019. URL : http://www.jneurosci.org/content/early/2019/03/18/JNEUROSCI.2792-18.2019 (visité le 27/07/2018)

*2018*

A39 Jean-Bernard Damasse, Laurent U Perrinet, Laurent Madelain et Anna Montagnini. « Reinforcement effects in anticipatory smooth eye movements ». In : *Journal of Vision* 18.11 (1er oct. 2018), p. 14-14. ISSN : 1534-7362. DOI : 10.1167/18.11.14. URL : https://jov.arvojournals.org/article.aspx?articleid=2707670 (visité le 22/10/2018)

A38 Jonathan Vacher, Andrew Isaac Meso, Laurent U Perrinet et Gabriel Peyré. « Bayesian Modeling of Motion Perception using Dynamical Stochastic Textures ». In : *Neural Computation* (21 nov. 2018). DOI : 10.1162/neco_a_01142. URL : https://www.mitpressjournals.org/doi/abs/10.1162/neco_a_01142

*2017*

A37 Mina A Khoei, Guillaume S Masson et Laurent U Perrinet. « The flash-lag effect as a motion-based predictive shift ». In : *PLoS Computational*

*Biology* 13.1 (26 jan. 2017), e1005068. DOI : 10.1371/journal.pcbi.1005068. URL : https://laurentperrinet.github.io/publication/khoei-masson-perrinet-17/

*2016*

A36 Jens KREMKOW, Laurent U PERRINET, Cyril MONIER, Jose-Manuel ALONSO, Ad M AERTSEN, Yves FRÉGNAC et Guillaume S MASSON. « Push-Pull Receptive Field Organization and Synaptic Depression : Mechanisms for Reliably Encoding Naturalistic Stimuli in V1 ». In : *Frontiers in Neural Circuits* 10 (2016). ISSN : 1662-5110. DOI : 10.3389/fncir.2016.00037. URL : http://journal.frontiersin.org/article/10.3389/fncir.2016.00037/full

*2015*

A36 Wahiba TAOUALI, Giacomo BENVENUTI, Pascal WALLISCH, Frédéric Y CHAVANE et Laurent U PERRINET. « Testing the odds of inherent vs. observed overdispersion in neural spike counts ». In : *Journal of Neurophysiology* 115.1 (22 jan. 2016), p. 434-444. ISSN : 1522-1598. DOI : 10.1152/jn.00194.2015. URL : http://www.ncbi.nlm.nih.gov/pubmed/26445864

A35 Jonathan VACHER, Andrew Isaac MESO, Laurent U PERRINET et Gabriel PEYRÉ. « Biologically Inspired Dynamic Textures for Probing Motion Perception ». In : *Advances in Neural Information Processing Systems* 28 (2015), p. 1918-1926. URL : http://papers.nips.cc/paper/5769-biologically-inspired-dynamic-textures-for-probing-motion-perception.pdf

A34 Laurent U PERRINET et James A BEDNAR. « Edge co-occurrences can account for rapid categorization of natural versus animal images ». In : *Scientific Reports* 5 (2015), p. 11400. DOI : 10.1038/srep11400. URL : http://www.nature.com/articles/srep11400

*2013*

A33 Laurent U PERRINET, Rick A ADAMS et Karl FRISTON. « Active inference, eye movements and oculomotor delays ». In : *Biological Cybernetics* 108.6 (16 déc. 2014), p. 777-801. ISSN : 1432-0770. DOI : 10.1007/s00422-014-0620-8. URL : http://link.springer.com/article/10.1007%2Fs00422-014-0620-8

*2013*

A32 Mina A KHOEI, Guillaume S MASSON et Laurent U PERRINET. « Motion-based prediction explains the role of tracking in motion extrapolation ». In : *Journal of Physiology-Paris* 107.5 (nov. 2013), p. 409-420. ISSN : 0928-4257. DOI : 10.1016/j.jphysparis.2013.08.001. URL : http://www.citeulike.org/user/LaurentPerrinet/article/12281049

A31 Bernhard A KAPLAN, Anders LANSNER, Guillaume S MASSON et Laurent U PERRINET. « Anisotropic connectivity implements motion-based prediction in a spiking neural network ». In : *Frontiers in Computational Neuroscience* 7.112 (17 sept. 2013). DOI : 10.3389/fncom.2013.00112. URL : https://laurentperrinet.github.io/publication/kaplan-13

A30 Rodrigo NAVA, J Victor MARCOS, Boris ESCALANTE-RAMIREZ, Gabriel CRISTÓBAL, Laurent U PERRINET et Raúl S J ESTÉPAR. « Advances in Texture Analysis for Emphysema Classification ». In : *Lecture Notes in Computer Science* 8259 (2013). Sous la dir. de David HUTCHISON et al., p. 214-221. ISSN : 1611-3349. DOI : 10.1007/978-3-642-41827-3_27. URL : http://dx.doi.org/10.1007/978-3-642-41827-3_27

*2012*

A29 Claudio SIMONCINI, Laurent U PERRINET, Anna MONTAGNINI, Pascal MAMASSIAN et Guillaume S MASSON. « More is not always better : dissociation between perception and action explained by adaptive gain control ».

In : *Nature Neuroscience* (2012). DOI : 10.1038/nn.3229. URL : http://www.nature.com/neuro/journal/vaop/ncurrent/full/nn.3229.html

A28 Laurent U PERRINET et Guillaume S MASSON. « Motion-based prediction is sufficient to solve the aperture problem ». In : *Neural Computation* 24.10 (2012), p. 2726-50. URL : https://arxiv.org/abs/1208.6471

A27 Paula S LEON, Ivo VANZETTA, Guillaume S MASSON et Laurent U PERRINET. « Motion Clouds : Model-based stimulus synthesis of natural-like random textures for the study of motion perception ». In : *Journal of Neurophysiology* 107.11 (14 mar. 2012), p. 3217-3226. ISSN : 1522-1598. DOI : 10.1152/jn.00737.2011. URL : http://dx.doi.org/10.1152/jn.00737.2011

A26 Karl FRISTON, Rick A ADAMS, Laurent U PERRINET et Michael BREAKSPEAR. « Perceptions as Hypotheses : Saccades as Experiments ». In : *Frontiers in Psychology* 3 (2012). ISSN : 1664-1078. DOI : 10.3389/fpsyg.2012.00151. URL : http://dx.doi.org/10.3389/fpsyg.2012.00151

A25 Rick A ADAMS, Laurent U PERRINET et Karl FRISTON. « Smooth Pursuit and Visual Occlusion : Active Inference and Oculomotor Control in Schizophrenia ». In : *PLoS ONE* 7.10 (26 oct. 2012), e47502+. DOI : 10.1371/journal.pone.0047502. URL : http://dx.doi.org/10.1371/journal.pone.0047502

A24 Guillaume S MASSON et Laurent U PERRINET. « The behavioral receptive field underlying motion integration for primate tracking eye movements ». In : *Neuroscience and biobehavioral reviews* (21 mar. 2012). ISSN : 1873-7528. DOI : 10.1016/j.neubiorev.2011.03.009. URL : http://view.ncbi.nlm.nih.gov/pubmed/21421006

A23 Nicole VOGES et Laurent U PERRINET. « Complex dynamics in recurrent cortical networks based on spatially realistic connectivities ». In : *Frontiers in Computational Neuroscience* 6 (2012). ISSN : 1662-5188. DOI : 10.3389/fncom.2012.00041. URL : https://laurentperrinet.github.io/publication/voges-12

*2011*

A22 Jérôme FLEURIET, Sandrine HUGUES, Laurent U PERRINET et Laurent GOFFART. « Saccadic foveation of a moving visual target in the rhesus monkey ». In : *Journal of Neurophysiology* 105.2 (1er fév. 2011), p. 883-895. ISSN : 1522-1598. DOI : 10.1152/jn.00622.2010. URL : http://dx.doi.org/10.1152/jn.00622.2010

A21 Amarender BOGADHI, Anna MONTAGNINI, Pascal MAMASSIAN, Laurent U PERRINET et Guillaume S MASSON. « Pursuing motion illusions : a realistic oculomotor framework for Bayesian inference ». In : *Vision research* 51.8 (22 avr. 2011), p. 867-880. ISSN : 1878-5646. DOI : 10.1016/j.visres.2010.10.021. URL : http://dx.doi.org/10.1016/j.visres.2010.10.021

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A20 Laurent U PERRINET. « Role of homeostasis in learning sparse representations ». In : *Neural Computation* 22.7 (17 juil. 2010), p. 1812-36. ISSN : 1530-888X. DOI : 10.1162/neco.2010.05-08-795. URL : https://arxiv.org/abs/0706.3177

A19 Emmanuel DAUCÉ et Laurent U PERRINET. « Computational Neuroscience, from Multiple Levels to Multi-level ». In : *Journal of Physiology-Paris* 104.1–2 (2010), p. 1-4. DOI : 10.1016/j.jphysparis.2009.11.001. URL : http://dx.doi.org/10.1016/j.jphysparis.2009.11.001

A18 Nicole Voges et Laurent U Perrinet. « Phase space analysis of networks based on biologically realistic parameters ». In : *Journal of Physiology-Paris* 104.1-2 (10 nov. 2010), p. 51-60. ISSN : 1769-7115. DOI : 10.1016/j.jphysparis.2009.11.004. URL : http://dx.doi.org/10.1016/j.jphysparis.2009.11.004

A17 Jens Kremkow, Laurent U Perrinet, Guillaume S Masson et Ad M Aertsen. « Functional consequences of correlated excitatory and inhibitory conductances in cortical networks ». In : *Journal of Computational Neuroscience* 28.3 (juin 2010), p. 579-94. DOI : 10.1007/s10827-010-0240-9. URL : http://www.ncbi.nlm.nih.gov/pubmed/20490645

A16 Khaled Masmoudi, Marc Antonini, Pierre Kornprobst, Laurent U Perrinet A novel bio-inspired static image compression scheme for noisy data transmission over low-bandwidth channels. *Acoustics Speech and Signal Processing (ICASSP)*, 2010.

*2008*

A15 Andrew P Davison, Daniel Bruderle, Jochen Eppler, Jens Kremkow, Eilif Muller, Dejan Pecevski, Laurent U Perrinet et Pierre Yger. « PyNN : A Common Interface for Neuronal Network Simulators ». In : *Frontiers in Neuroinformatics* 2 (2008), p. 11. ISSN : 16625196. DOI : 10.3389/neuro.11.011.2008. URL : http://dx.doi.org/10.3389/neuro.11.011.2008

A14 Laurent U Perrinet. « Adaptive Sparse Spike Coding : applications of Neuroscience to the compression of natural images ». In : *Optical and Digital Image Processing Conference 7000 - Proceedings of SPIE Volume 7000, 7 - 11 April 2008*. Sous la dir. de Gabriel C. Peter Schelkens. T. 7000. 1. SPIE, 2008. URL : https://arxiv.org/abs/0804.4830

A13 Frédéric V Barthélemy, Laurent U Perrinet, Eric Castet et Guillaume S Masson. « Dynamics of distributed 1D and 2D motion representations for short-latency ocular following ». In : *Vision research* 48.4 (fév. 2008), p. 501-522. ISSN : 0042-6989. DOI : 10.1016/j.visres.2007.10.020. URL : http://dx.doi.org/10.1016/j.visres.2007.10.020

*2007*

A12 Sylvain Fischer, Filip Šroubek, Laurent U Perrinet, Rafael Redondo et Gabriel Cristóbal. « Self-Invertible 2D Log-Gabor Wavelets ». In : *International Journal of Computer Vision* 75.2 (13 jan. 2007), p. 231-246. ISSN : 1573-1405. DOI : 10.1007/s11263-006-0026-8. URL : http://dx.doi.org/10.1007/s11263-006-0026-8

A11 Sylvain Fischer, Rafael Redondo, Laurent U Perrinet et Gabriel Cristóbal. « Sparse Approximation of Images Inspired from the Functional Architecture of the Primary Visual Areas ». In : *EURASIP Journal on Advances in Signal Processing* 2007.1 (2007), p. 090727-122. ISSN : 1687-6180. DOI : 10.1155/2007/90727. URL : http://dx.doi.org/10.1155/2007/90727

A10 Anna Montagnini, Pascal Mamassian, Laurent U Perrinet, Eric Castet et Guillaume S Masson. « Bayesian modeling of dynamic motion integration ». In : *Journal of Physiology-Paris* 101.1-3 (jan. 2007), p. 64-77. ISSN : 0928-4257. DOI : 10.1016/j.jphysparis.2007.10.013. URL : http://dx.doi.org/10.1016/j.jphysparis.2007.10.013

A9 Laurent U Perrinet et Guillaume S Masson. « Modeling spatial integration in the ocular following response using a probabilistic framework ».

In : *Journal of Physiology-Paris* 101.1–3 (2007), p. 46-55. DOI : 10.1016/j.jphysparis.2007.10.011. URL : http://dx.doi.org/10.1016/j.jphysparis.2007.10.011

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A8 Laurent U PERRINET. « Finding Independent Components using spikes : a natural result of Hebbian learning in a sparse spike coding scheme ». In : *Natural Computing* 3.2 (jan. 2004), p. 159-75. DOI : 10.1023/B:NACO.0000027753.27593.a7. URL : http://dx.doi.org/10.1023/B:NACO.0000027753.27593.a7

A7 Laurent U PERRINET. « Feature detection using spikes : the greedy approach ». In : *Journal of Physiology-Paris* 98.4-6 (juil. 2004), p. 530-9. DOI : 10.1016/j.jphysparis.2005.09.012. URL : http://dx.doi.org/10.1016/j.jphysparis.2005.09.012

A6 Laurent U PERRINET, Manuel SAMUELIDES et Simon J THORPE. « Coding static natural images using spiking event times : do neurons cooperate ? » In : *IEEE Transactions on Neural Networks* 15.5 (sept. 2004). Special issue on 'Temporal Coding for Neural Information Processing', p. 1164-75. DOI : 10.1109/TNN.2004.833303. URL : http://dx.doi.org/10.1109/TNN.2004.833303

*2003*

A5 Laurent U PERRINET, Manuel SAMUELIDES et Simon J THORPE. « Emergence of filters from natural scenes in a sparse spike coding scheme ». In : *Neurocomputing* 58–60.C (2003). Special issue : Computational Neuroscience : Trends in Research 2004 - Edited by E. De Schutter, p. 821-6. DOI : 10.1016/j.neucom.2004.01.133. URL : http://dx.doi.org/10.1016/j.neucom.2004.01.133

*2002*

A4 Laurent U PERRINET, Manuel SAMUELIDES et Simon J THORPE. « Sparse spike coding in an asynchronous feed-forward multi-layer neural network using matching pursuit ». In : *Neurocomputing* 57 (mar. 2004). Special issue : New Aspects in Neurocomputing : 10th European Symposium on Artificial Neural Networks 2002 - Edited by T. Villmann, p. 125-134. ISSN : 0925-2312. DOI : 10.1016/j.neucom.2004.01.010. URL : http://dx.doi.org/10.1016/j.neucom.2004.01.010

A3 Laurent U PERRINET, Arnaud DELORME, Simon J THORPE et Manuel SAMUELIDES. « Network of integrate-and-fire neurons using Rank Order Coding A : how to implement spike timing dependant plasticity ». In : *Neurocomputing* 38–40.1–4 (2001), p. 817-22. DOI : 10.1016/S0925-2312(01)00460-X

A2 Arnaud DELORME, Laurent U PERRINET, Simon J THORPE et Manuel SAMUELIDES. « Network of integrate-and-fire neurons using Rank Order Coding B : spike timing dependant plasticity and emergence of orientation selectivity ». In : *Neurocomputing* 38–40.1–4 (2001), p. 539-45. DOI : 10.1.1.18.4990. URL : http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.18.4990

A1 Laurent U PERRINET et Manuel SAMUELIDES. « Coherence detection in a spiking neuron via Hebbian learning ». In : *Neurocomputing* 44–46.C (juin 2002), p. 817-22. DOI : 10.1016/S0925-2312(02)00374-0. URL : http://dx.doi.org/10.1016/S0925-2312(02)00374-0

## 3 Chapitres d'ouvrage à comité de lecture

B5 Laurent U Perrinet. « From the retina to action : Dynamics of predictive processing in the visual system ». In : *The Philosophy and Science of Predictive Processing*. Sous la dir. de Steven S. Gouveia. in press. Bloomsbury, 2020. URL : https://laurentperrinet.github.io/publication/perrinet-20/

B4 Anna Montagnini, Laurent U Perrinet et Guillaume S Masson. « Visual motion processing and human tracking behavior ». In : *Biologically Inspired Computer Vision*. Sous la dir. de Gabriel Cristóbal, Laurent U Perrinet et Matthias S Keil. Wiley-VCH Verlag GmbH et Co. KGaA, nov. 2015. Chap. 12. DOI : 10.1002/9783527680863.ch12. URL : https://laurentperrinet.github.io/publication/montagnini-15-bicv/

B3 Laurent U Perrinet. « Sparse Models for Computer Vision ». In : *Biologically Inspired Computer Vision*. Sous la dir. de Gabriel Cristóbal, Laurent U Perrinet et Matthias S Keil. Wiley-VCH Verlag GmbH et Co. KGaA, nov. 2015. Chap. 13. ISBN : 9783527680863. DOI : 10.1002/9783527680863.ch14. URL : http://onlinelibrary.wiley.com/doi/10.1002/9783527680863.ch14/summary

B2 Gabriel Cristóbal, Laurent U Perrinet et Matthias S Keil. « Introduction ». In : *Biologically Inspired Computer Vision*. Sous la dir. de Gabriel Cristóbal, Laurent U Perrinet et Matthias S Keil. Wiley-VCH Verlag GmbH et Co. KGaA, nov. 2015. Chap. 1. DOI : 10.1002/9783527680863.ch1. URL : http://bicv.github.io/chap1/

B1 Laurent U Perrinet. « Dynamical Neural Networks : modeling low-level vision at short latencies ». In : *Topics in Dynamical Neural Networks : From Large Scale Neural Networks to Motor Control and Vision*. T. 142. The European Physical Journal (Special Topics) 1. Berlin / Heidelberg : Springer Verlag, mar. 2007, p. 163-225. DOI : 10.1140/epjst/e2007-00061-7. URL : https://laurentperrinet.github.io/publication/perrinet-07/

## 4 Thèses et ouvrages

- Gabriel Cristóbal, Laurent U Perrinet et Matthias S Keil, éd. *Biologically Inspired Computer Vision*. Weinheim, Germany : Wiley-VCH Verlag GmbH et Co. KGaA, 7 oct. 2015. ISBN : 9783527680863. DOI : 10.1002/9783527680863. URL : http://onlinelibrary.wiley.com/book/10.1002/9783527680863
- Laurent U Perrinet et Emmanuel Daucé, éd. *Proceedings of the second french conference on Computational Neuroscience, Marseille*. Oct. 2008. URL : https://hal.archives-ouvertes.fr/NEUROCOMP08
- Bruno Cessac, Emmanuel Daucé, Laurent U Perrinet et Manuel Samuelides. *Topics in Dynamical Neural Networks : From Large Scale Neural Networks to Motor Control and Vision*. T. 142. The European Physical Journal (Special Topics) 1. Berlin / Heidelberg : Springer Verlag, mar. 2007
- Laurent U Perrinet. « Comment déchiffrer le code impulsionnel de la vision ? Étude du flux parallèle, asynchrone et épars dans le traitement

visuel ultra-rapide ≫. Thèse de doct. Université Paul Sabatier, Toulouse, France, 2003. URL : https://laurentperrinet.github.io/publication/perrinet-03-these

# 5 Actes de conférences internationales à comité de lecture

102. Hugo Ladret, Nelson Cortes, Frédéric Y Chavane, Laurent U Perrinet et Christian Casanova. ≪ Orientation selectivity to synthetic natural patterns in a cortical-like model of the cat primary visual cortex ≫. In : *Proceedings of the Society for Neuroscience conference*. 403.16 / P20. 2019. URL : https://www.abstractsonline.com/pp8/#!/7883/presentation/65859

101. Victor Boutin, Angelo Franciosini, Frédéric Y Chavane, Franck Ruffier et Laurent U Perrinet. ≪ Sparse Deep Predictive Coding to model visual object recognition ≫. In : *Proceedings of the Society for Neuroscience conference*. presentation number : 490.02. 2019. URL : https://laurentperrinet.github.io/publication/boutin-franciosini-ruffier-perrinet-19-sfn/

100. Angelo Franciosini, Victor Boutin et Laurent U Perrinet. ≪ Modelling Complex Cells of Early Visual Cortex using Predictive Coding ≫. In : *CNS*2019, Barcelona*. P243. 2019. URL : https://www.cnsorg.org/cns-2019-poster-presentation-guide

99. Angelo Franciosini, Victor Boutin et Laurent U Perrinet. ≪ A hierarchical, multi-layer convolutional sparse coding algorithm based on predictive coding ≫. In : *NeuroFrance 2019, International Conference from the Société des Neurosciences, Marseille, France*. 2019. URL : https://www.professionalabstracts.com/nf2019/iplanner/#/presentation/790

98. Victor Boutin, Angelo Franciosini, Franck Ruffier et Laurent U Perrinet. ≪ Top-down connection in Hierarchical Sparse Coding ≫. In : *GdR Robotics - 2019-06-05*. 2019

97. Victor Boutin, Angelo Franciosini, Franck Ruffier et Laurent U Perrinet. ≪ Unsupervised Hierarchical Sparse Coding algorithm inspired by Biological Vision ≫. In : *Doc2AMU Doctoral Day - 2018-11-23*. 2018

96. Victor Boutin, Angelo Franciosini, Franck Ruffier et Laurent U Perrinet. ≪ From biological vision to unsupervised hierarchical sparse coding ≫. In : *iTwist, 2018*. 2018. URL : https://laurentperrinet.github.io/publication/boutin-franciosini-ruffier-perrinet-18-itwist/

95. Julien Dupeyroux, Victor Boutin, Julien R Serres, Laurent U Perrinet et Stéphane Viollet. ≪ M2APix : a bio-inspired auto-adaptive visual sensor for robust ground height estimation ≫. In : *ISCAS2018, IEEE International Symposium on Circuits and Systems*. 2018. URL : https://ieeexplore.ieee.org/abstract/document/8351433

94. Angelo Franciosini et Laurent U Perrinet. ≪ On the Origins of Hierarchy in Visual Processing ≫. In : *Curves and Surfaces 2018, Arcachon*. 2018. URL : https://laurentperrinet.github.io/publication/franciosini-perrinet-18-cs/

93. Hugo Ladret et Laurent U Perrinet. ≪ Selectivity to oriented patterns of different precisions ≫. In : *GDR Vision, Paris, 2018*. 2018. URL : https:

//github.com/hugoladret/InternshipM1/raw/master/2018-06_POSTER_final.pdf

92. Kiana Mansour Pour, Nikos Gekas, Pascal Mamassian, Laurent U Perrinet, Anna Montagnini et Guillaume S Masson. « Speed uncertainty and motion perception with naturalistic random textures ». In : *Journal of Vision, Vol.18, 345, proceedings of VSS*. 26.472. 2018. doi : 10.1167/18.10.345. url : https://laurentperrinet.github.io/publication/mansour-18-vss

91. Chloé Pasturel, Anna Montagnini et Laurent U Perrinet. « Estimating and anticipating a dynamic probabilistic bias in visual motion direction ». In : 2018. url : https://laurentperrinet.github.io/publication/pasturel-18

90. Chloé Pasturel, Anna Montagnini et Laurent U Perrinet. « ANEMO : Quantitative tools for the ANalysis of Eye MOvements ». In : *Grenoble Workshop on Models and Analysis of Eye Movements, Grenoble, France*. 2018. url : https://laurentperrinet.github.io/publication/pasturel-18-anemo

89. Laurent U Perrinet, Chloé Pasturel et Anna Montagnini. « Estimating and anticipating a dynamic probabilistic bias in visual motion direction ». In : *Grenoble Workshop on Models and Analysis of Eye Movements, Grenoble, France*. 2018. url : https://laurentperrinet.github.io/publication/pasturel-18-grenoble

88. Laurent U Perrinet. « A low-cost, accessible eye tracking framework ». In : *GDR Vision, Paris, 2018*. 2018. url : https://github.com/laurentperrinet/Perrinet18gdr

87. Victor Boutin, Angelo Franciosini, Franck Ruffier et Laurent U Perrinet. « Controlling an aerial robot with human gestures using bio-inspired algorithm ». In : *Doc2AMU Doctoral Day - 2017-10-13*. 2017

86. Victor Boutin, Franck Ruffier et Laurent U Perrinet. « Efficient learning of sparse image representations using homeostatic regulation ». In : *Neuro-France 2017, International Conference from the Société des Neurosciences, Bordeaux, France*. 2017

85. Victor Boutin, Franck Ruffier et Laurent U Perrinet. « Efficient learning of sparse image representations using homeostatic regulation ». In : *SPARS2017, Lisbon*. 2017

84. Kiana Mansour Pour, Laurent U Perrinet, Guillaume S Masson et Anna Montagnini. « How the dynamics of human smooth pursuit is influenced by speed uncertainty ». In : *Proceedings of ECVP*. 2017. url : https://laurentperrinet.github.io/publication/mansour-17-ecvp/

83. Kiana Mansour Pour, Laurent U Perrinet, Guillaume S Masson et Anna Montagnini. « Voluntary tracking the moving clouds : Effects of speed variability on human smooth pursuit ». In : *GDR Vision, Lille, 2017*. 2017. url : https://laurentperrinet.github.io/publication/mansour-17-gdr

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