

Sébastien M. Crouzet

CIVIL STATUS Age: 31
Citizenship: French
Married, one daughter.

CONTACT INFORMATION Berlin School of Mind and Brain e-mail: seb.crouzet@gmail.com
Luisenstraße 56, 10117 Berlin, Germany web: <http://scrouzet.github.com>

CURRENT POSITION **Post-doctoral Researcher**, Charité University, Berlin, Germany
Principal Investigator: Niko Busch
Topic: Reentrant processing and visual awareness: neural and perceptual mechanisms

EDUCATION & ACADEMIC EXPERIENCE **Post-doctoral Researcher**, Brown University, Providence, RI, USA **2010-2012**
Principal Investigator: Thomas Serre
Topic: Linking behavioral and electrophysiological data to computational models

 Ph.D. in Neurosciences, Université de Toulouse, CNRS, France **2010**
Advisor: Dr Simon J. Thorpe
Committee: F. Vitu-Thibault, G.A. Rousselet, O. Pascalis, B. Rossion, P-G Zanone, D. Bazalgette
Topic: Ultra-rapid recognition of objects in natural scenes.
Highest academic distinction: Très honorable avec les félicitations du jury à l'unanimité.

 European Summer School in Visual Neurosciences **Sep 2008**
'From Spike to Awareness', Organisation: K. Gegenfurtner, F. Bremmer, J. Braun.
Rauischholzhausen, Germany

 Master in Cognitive Science, *Graduated magna cum laude* **2006**
ENS / EHESS / Ecole Polytechnique / Paris 5 / Paris 6, France

 Licence in Cognitive Science, *Graduated magna cum laude* **2004**
Université Bordeaux 2, France

 DEUG in Psychology **2003**
Université Paris 5, France

 Baccalauréat Scientifique, spécialité Mathématiques **2000**
Lycée Bernard Palissy, Saintes, France

REFEREED JOURNAL ARTICLES **Crouzet SM**, Overgaard M & Busch NA (2014). Visual masking leaves fastest saccadic responses intact. *PLoS ONE*, 9(2), e87418. doi: 10.1371/journal.pone.0087418

 Cauchoux M and **Crouzet SM** (2013). How plausible is a subcortical account of rapid visual recognition?. *Front. Hum. Neurosci.* 7:39. doi: 10.3389/fnhum.2013.00039

 Crouzet SM, Joubert OR, Thorpe SJ, Fabre-Thorpe M (2012) Animal Detection Precedes Access to Scene Category. *PLoS ONE* 7(12): e51471. doi: 10.1371/journal.pone.0051471

 Crouzet SM and Thorpe SJ (2011). Low level cues and ultra-fast face detection. *Front. Psychology* 2:342. doi: 10.3389/fpsyg.2011.00342

 Crouzet SM and Serre T (2011). What are the visual features underlying rapid object recognition? *Front. Psychology* 2:326. doi: 10.3389/fpsyg.2011.00326

 Crouzet, S. M., Cauchoux, M. (2011). When does the visual system need to look back? *The Journal of Neuroscience*, 15 June 2011, 31(24): 8706-8707

 Crouzet, S. M., Kirchner, H., & Thorpe, S. J. (2010). Fast saccades toward faces: Face detection in just 100 ms. *Journal of Vision*, 10(4):16, 1-17, <http://journalofvision.org/10/4/16/>, doi:10.1167/10.4.16.

- BOOK CHAPTER M., Fabre-Thorpe, **S. Crouzet**, G. A. Rousselet, H. Kirchner and S. J. Thorpe (2008). Catégorisation visuelle rapide: les visages sont-ils des objets spécifiques? In *Traitement et reconnaissance des visages: du percept à la personne*. E. J. Barbeau, S. Joubert and O. Felician. Marseille, Solal: 239-260.
- CONFERENCE PRESENTATIONS Kathrin Ohla, Niko A. Busch & Sébastien M. Crouzet (2014) Decoding neural taste quality processing with multivariate pattern analyses (MVPA) of human brain electric activity. AChemS (Association for Chemoreception Sciences) 36th Annual Meeting.
- Sébastien M. Crouzet, Simon Hviid Del Pin, Morten Overgaard & Niko A. Busch (2014) Revealing the dynamics of visual masking using a speeded saccadic choice task. Submitted to VSS2014.
- Imri Sofer, Sébastien M. Crouzet & Thomas Serre (2014) A simple rapid categorization model accounts for variations in behavioral responses across rapid scene categorization tasks. Submitted to VSS2014.
- Sébastien M. Crouzet, Niko A. Busch, & Kathrin Ohla (2014) Multivariate classification of ERP topographical information allows to investigate taste quality perception time-course. Cutting EEG 2014.
- Imri Sofer, Kwang Ryeol Lee, Pachaya Sailamul, Sébastien Crouzet & Thomas Serre (2013) Understanding the nature of the visual representations underlying rapid categorization tasks. [Abstract]. Journal of Vision, 13(9), article 658.
- Crouzet SM, Hviid Del Pin S, Overgaard M & Busch NA (2013) Dynamics of saccadic responses reveal how object substitution masking interferes with reentrant processing. 55th TeaP - Tagung experimentell arbeitender Psychologen (Conference of Experimental Psychologists).
- Crouzet SM, Cauchoux M, Fize D & Serre T (2011) The neural basis of rapid categorization: Linking computational models and electrophysiology. NIPS 2011 workshop on machine learning and interpretation in neuroimaging.
- Cauchoux M., Crouzet S., Fize D. & Serre T. (2011) Visual features and dynamics of rapid recognition in monkey visual cortex. SFN 2011
- Crouzet S M, Stemmler T, Capps M, Fahle M & Serre T (2011) Single-trial decoding of binocular rivalry switches from oculometric and pupil data. Vision Science Society, Naples, Florida.
- Brilhault A, Mathey M, Jolmes N, Crouzet S M & Thorpe SJ (2011) Saccades to color: an ultra-fast controllable mechanism to low-level features. Vision Science Society, Naples, Florida.
- Thorpe S J, Brilhault A, Mathey M, Crouzet S M, 2010, "Colour based target selection for ultrarapid saccades: The fastest controllable selection mechanism?" Perception 39 ECVF Abstract Supplement, page 158
- Mathey M A, Crouzet S M, Thorpe S J, 2010, "The accuracy of ultra-rapid saccades to faces" Perception 39 ECVF Abstract Supplement, page 171
- Crouzet, S. M. & Thorpe, S. J. (2010) Power spectrum cues underlying ultra-fast saccades towards faces [Abstract]. Journal of Vision, 10(7): 634
- Mathey, M. A., Crouzet, S. M. & Thorpe, S. J. (2010) Ultra-rapid saccades to faces : the effect of target size [Abstract]. Journal of Vision, 10(7): 635
- Crouzet S, Mathey M, Thorpe S J (2009). Ultra-fast saccades to faces: A temporal precedence effect? Perception 38 ECVF Abstract Supplement, page 157.
- Crouzet, S. M., Joubert, O. R., Thorpe, S. J., & Fabre-Thorpe, M. (2009). The bear before the forest, but the city before the cars: Revealing early object/background processing [Abstract]. Journal of Vision, 9(8):954
- Fabre-Thorpe, M., Crouzet, S. M., Wu, C.-T., & Thorpe, S. J. (2009). At 130 ms you "know" where the animal is but you don't yet "know" it's a dog [Abstract]. Journal of Vision, 9(8):786
- Thorpe, S. J., Crouzet, S. M., Macé, M. J., Bacon-Macé, N., & Fabre-Thorpe, M. (2009). Masking in a high-level gender discrimination task is essentially entirely pre-cortical [Abstract]. Journal of Vision, 9(8):546
- S Crouzet, H Kirchner, S J Thorpe (2008). Saccading towards faces in 100 ms. What's the secret? Perception 37 ECVF Abstract Supplement, page 119.
- S J Thorpe, H Kirchner, S Crouzet, P Bayerl, H Neumann (2008). Processing times for optic flow patterns measured by the saccadic choice task. Perception 37 ECVF Abstract Supplement, page 40.
- Crouzet, S., Thorpe, S. J., & Kirchner, H. (2007). Category-dependent variations in visual processing time. Journal of Vision, 7(9):922,922a, <http://journalofvision.org/7/9/922/>, doi:10.1167/7.9.922.
- Thorpe, S., Crouzet, S., & Kirchner, H. (2007). Saliency maps and ultra-rapid choice saccade tasks. Journal of Vision, 7(9):30, 30a, <http://journalofvision.org/7/9/30/>, doi:10.1167/7.9.30.
- Simon J. Thorpe, Sébastien Crouzet, Holle Kirchner and Michèle Fabre-Thorpe (2006). Ultra-rapid face detection in natural images : implications for computation in the visual system. First French Conference on Computational Neurosciences, pp. 124-127. Abbaye des Prémontrés, Pont à Mousson, France.
- Simon J. Thorpe, Sébastien Crouzet and Holle Kirchner (2006). Comparing processing speed for complex natural scenes and simple visual forms. Perception, vol. 35, p 128.

INVITED TALKS	<i>Invited by David Sheinberg, Brown University, Providence, RI, USA</i>	Mar 2012
	An early cortical basis for speed of sight.	
	<i>Invited by Simon J. Thorpe, CERCO-CNRS, Toulouse, France</i>	Jan 2012
	Rapid Visual Processing of Natural Scenes: Linking Behavioral and Electrophysiological Data to Computational Models.	
	<i>In-House Seminar, Neuroscience Department, Brown University, Providence, RI, USA</i>	Nov 2011
	Rapid Visual Processing of Natural Scenes: Linking Behavioral and Electrophysiological Data to Computational Models.	
	<i>Invited by Aude Oliva, MIT, Cambridge, MA, USA</i>	May 2009
	Revealing early visual processing of natural scenes using a saccade choice task.	
EDITORIAL SERVICE	Animal Cognition; Attention, Perception, & Psychophysics; Brain Topography; Cerebral Cortex; Frontiers in Perception Science (review editor); Frontiers in Human Neuroscience (review editor); Frontiers in Computational Neuroscience; IEEE Transactions on Pattern Analysis and Machine Intelligence; Journal of Experimental Psychology: Human Perception and Performance; Journal of Neuroscience Methods; Journal of Vision; Perception; PLoS ONE; Psychological Science; Robotics and Autonomous Systems; Seeing and Perceiving; Vision Research.	
TEACHING CERTIFICATION	Qualification pour la fonction de Maître de conférences - section 69 - Neurosciences 08/02/2012 - 31/12/2016 (numéro de qualification : 12269224957)	
TEACHING EXPERIENCE	Instructor (14 sessions of 90 min)	2013/2014
	<i>Master program, Berlin School of Mind & Brain, Berlin, Germany</i>	
	Seminar on visual perception. Teaching in English language.	
	Statistics Tutorial (6h)	Dec 2012
	<i>Doctoral school, Berlin School of Mind & Brain, Berlin, Germany</i>	
	Using the R environment for data analysis, statistical computing and graphics. Teaching in English language.	
	Guest lecture (2h)	2011
	<i>Computational Vision course, CLPS1520, Brown University, Providence, RI, USA</i>	
	Object recognition in natural scenes. Teaching in English language.	
	Teaching Assistant (96h over 3 years)	2006 to 2009
	<i>Department of Psychology, Université Toulouse Le Mirail, Toulouse, France</i>	
	Introduction to Neurosciences	
	Instructor (30h over 3 years)	2006 to 2009
	<i>School of Psychomotricity, Faculté de Médecine de Rangueil, Toulouse, France</i>	
	Visual system and eye movements	
	Instructor (24h over 2 years)	2006 to 2007
	<i>School of Psychomotricity, Faculté de Médecine de Rangueil, Toulouse, France</i>	
	Epistemology of neuropsychology	
	Instructor (10h)	2006
	<i>School of Psychomotricity, Faculté de Médecine de Rangueil, Toulouse, France</i>	
	Sleep, emotions	
ACADEMIC MENTORING	As a PhD student and post-doc, I have worked with:	
	Luca Lemi	<i>PhD student at the Berlin School of Mind and Brain, Germany</i>
	Simon Ludwig	<i>Master student at Freie Universität, Berlin, Germany</i>
	Maxime Cauchoux	<i>PhD student at Université Toulouse 3 Paul Sabatier, Toulouse, France</i>
	Imri Sofer	<i>PhD student at Brown University, Providence, USA</i>
	Robin Martins	<i>Undergraduate student at Brown University, Providence, USA</i>
	Rohan Katipally	<i>Undergraduate student at Brown University, Providence, USA</i>
	Marie Mathey	<i>Master student in Toulouse, France</i>

OFFICIAL COMMITMENTS	Organizer of Cutting EEG 2014	19–21 February 2014
	Member of the organizing committee for the Cutting EEG 2014: Symposium on cutting-edge EEG methods. Specifically in charge of the proceedings' publication in <i>Journal of Neuroscience Methods</i> . http://www.mind-and-brain.de/postdoctoral-program/scientific-events/cutting-eeeg/ Berlin, Germany	
	Organizer of the J3CN	2010 to 2011
	Journal Club for Cognitive & Computational Neuroscience, Brown University https://sites.google.com/a/brown.edu/j3cn/ Providence, USA	
	Header of the Organizing Committee for the CJCSC'09	2008 to 2009
FELLOWSHIPS, GRANTS & FUNDINGS	French Cognitive Science Young Researcher Conference http://fresco.risc.cnrs.fr/cjcsc2009/ Toulouse, France	
	Header of the Young Researcher Workshop for trend forecasting in Cognitive Science	2009
	Part of the PIRSTEC project funded by the French National Research Agency (ANR) http://pirstec.risc.cnrs.fr	
	Students and Post-Docs representative	2006 to 2009
	Brain and Cognition Research Center lab council Toulouse, France	
	Founding member of the association inCOGnu	2006 to 2009
	Association of cognitive science students of Toulouse http://incognu.fr/ Toulouse, France	
	Grant awarded to Niko Busch	Sep 2012 to Aug 2014
	Deutsche Forschungsgemeinschaft (DFG)	
	Grant awarded to Thomas Serre	Sep 2010 to Jul 2012
	Defense Advanced Research Projects Agency (DARPA). I had an active participation in the monthly+trimestrial+annual reports.	
	4th year of Ph.D. fellowship	Nov 2009 to May 2010
	Fondation pour la Recherche Médicale (FRM)	
	Postgraduate scholarship	Oct 2006 to Sep 2009
	Délégation Générale pour l'Armement (DGA, French Ministry of Defense)	
	Master scholarship (bourse d'excellence)	Sep 2005 to Jun 2006
	Université René Descartes Paris 5	
PROFESSIONAL SOCIETIES	Society for Neuroscience Vision Science Society	

PROFESSIONAL
SKILLS

Operating Systems: Advanced knowledge of Mac OS and GNU Linux.
Programming languages: MATLAB, R, Python.
Experimental testing: Psychtoolbox for MATLAB.
Eye movement recording: SR Research Eyelink, SMI View Eyetracker, Chronos Eyetracker, EOG.
EEG and iEEG analysis: Homemade MATLAB functions and EEGlab.
Statistical Analysis: Parametric and non-parametric tests, Multivariate Pattern Analysis.
Communication and publishing: Advanced knowledge of L^AT_EX, Adobe Illustrator & the presentation software Keynote (Mac OS); website creation and maintenance with HTML and CSS.

REFEREES

Dr Simon J. Thorpe

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CNRS, Toulouse, France
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Dr Thomas Serre

Post-doc advisor
Brown University, Providence, RI, USA
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e-mail: thomas_serre@brown.edu

Dr Niko A. Busch

Post-doc advisor
Charité University, Berlin, Germany
phone: *available on request*
e-mail: niko.busch@charite.de