

PERSONAL INFORMATION

David Gueorguiev

 425 Chaussée de Waterloo 1050 Bruxelles, Belgique

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 [Personal homepage](#)

Gender Male | Date of birth 08 January 1986 | Nationality(-ies) Belgian, Bulgarian

RESEARCH EXPERIENCE

January 2020 –

CNRS researcher

Institut des Systèmes Intelligents et de Robotique
4 Place Jussieu 75005 Paris (France)

October 2017 – December 2019

Postdoctoral researcher

Max Planck Institute for Intelligent Systems, Haptic intelligence department
Heisenbergstraße, 3 70569 Stuttgart (Germany)
Investigation of the human perception of contact forces during haptic perception

September 2016 – September 2017

Postdoctoral researcher

INRIA Lille - Nord Europe, MINT research team
Research on human machine interaction with a focus on friction based haptic feedback.

September 2013 – September 2016

PhD student / Marie-Curie Actions early stage researcher

Université catholique de Louvain, Brussels (Belgium)
Research on the tactile perception of natural materials and ultrasonically induced frictional cues

September 2012 – August 2013

Employee

Diogène asbl and Millenium Documentary Film festival
2, rue de la Vanne 1050 Brussels, Belgium
Coordination of the web communication for the Millenium International Documentary Film Festival 2013.

May 2012 – August 2012

Research assistant

University of Cambridge (United Kingdom), Cognition and Brain Unit
Investigation of the transitions of consciousness and the perception of complex rhythms modulated by attention with EEG and MEG techniques.

February 2011 – December 2011

Intern

University of Cambridge (United Kingdom), Cognition and Brain Unit
Master thesis research internship: Computational work on available data and experimental work on the transitions of consciousness in patients and healthy volunteers.

- 2013 – 2016 **PhD thesis: Tactile perception of natural and simulated textures: a psychophysical approach**
Université catholique de Louvain, Brussels (Belgium)
- 2009 – 2011 **Research-oriented master in social science, mention cognitive science**
joint degree delivered by Ecole des Hautes Etudes en Sciences Sociales, Université Paris 5 and Ecole Normale Supérieure, Paris, France
Discipline and speciality: Mathematical, Physical and Computer Science Modeling
- 2004 – 2008 **Bachelor degree in Physics**
Université libre de Bruxelles, Brussels, Belgium

AWARDS

- 2018 **Finalist for best paper award**
Eurohaptics conference 2018, Pisa, Italy
- 2016 **Best work-in-progress paper and poster presentation**
Eurohaptics conference 2016, London, United Kingdom
- 2015 **2nd best poster presentation**
World Haptics conference 2015, Chicago, USA

PERSONAL SKILLS

Mother tongue(s) Bulgarian, French

Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C1	C2	C1	C1	C2
German	B1	B2	B1	B1	A2

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user
Common European Framework of Reference (CEF) level

- Scientific skills**
- Scientific project management, experimental design, data science
 - Signal processing, psychophysics, statistics, mathematical modeling
 - Coding in Matlab, C and R, EEG/MEG acquisitions, EEGLab, Letswave,
- Computer skills**
- Adobe Illustrator and Photoshop, data science, Latex
 - Web design, html5, Drupal, Mailchimp
- Educational skills**
- Teaching and workshops organizing for high-school and bachelor level students.

PUBLICATIONS

- Peer-reviewed journals**
- Gueorguiev D, Vezzoli E, Sednaoui T, , Grisoni L, Lemaire-Semail B (2019), The Perception of Ultrasonic Square Reductions of Friction with Variable Sharpness and Duration, IEEE Transactions on Haptics, 12, pp. 179-188
- Gueorguiev D, Vezzoli E, Mouraux A, Lemaire-Semail B and Thonnard J-L (2017), The Tactile Perception of Transient Changes in Friction, J. R. Soc. Interface, 14, 20170641.

Gueorguiev D, Bochereau S, Mouraux A, Hayward V and Thonnard J-L (2016). Touch uses frictional cues to discriminate flat surfaces. *Sci. Rep.* 6, 2555, doi: 10.1038/srep25553.

Chennu S, Noreika V, Gueorguiev D, Shtyrov Y, Bekinschtein T, and Henson R (2016), Silent Expectations: Dynamic Causal Modelling of Cortical Prediction and Attention to Sounds that Weren't, *J Neurosci*, 36.32 (2016): 8305-8316.

Klöcker A*, Gueorguiev D*, Thonnard J-L, Mouraux A (2015) Peripheral vs. central determinants of vibrotactile adaptation, *J Neurophysiol*, jn-00519. *equal contribution

Chennu S, Noreika V, Gueorguiev D, et al. (2013) Expectation and Attention in Hierarchical Auditory Prediction, *J Neurosci* 33(27):11194–11205.

Peer-reviewed conferences

Gueorguiev D, Kaci A, Amberg M, Giraud F, and Lemaire-Semail B, Travelling Ultrasonic Wave Enhances Keyclick Sensation. In *International Conference on Human Haptic Sensing and Touch Enabled Computer Applications*, pp. 302-312. Springer, Cham, 2018. (Finalist for best paper award)

Kalantari F, Gueorguiev D, Lank E, Bremard N, and Grisoni L., Exploring Fingers' Limitation of Texture Density Perception on Ultrasonic Haptic Displays. In *International Conference on Human Haptic Sensing and Touch Enabled Computer Applications*, pp. 354- 365. Springer, Cham, 2018. (Preselected for best student paper award among 11 finalists)

Gueorguiev D, Vezzoli E, Sednaoui T, Grisoni L and Lemaire-Semail B (2017), Feeling multiple edges: the tactile perception of short ultrasonic square reductions of the finger- surface friction, *World Haptics 2017 conference*. (selected in the top 10% of accepted papers)

Sednaoui T, Vezzoli E, Gueorguiev D, Amberg M, Chappaz C, Lemaire-Semail B (2016) Psychophysical Power Optimization of Friction Modulation for Tactile Interfaces. *Proceeding from Eurohaptics 2016, Eurohaptics conference 2016*

WORKSHOPS AT INTERNATIONAL CONFERENCES

June 13, 2018

From Fingertip Mechanics to Tactile Sensation at Eurohaptics 2018 in Pisa, Italy

REVIEWS FOR SCIENTIFIC JOURNALS AND CONFERENCES

Journals

- Transactions on Haptics
- PLOS ONE
- Scientific Reports
- Frontiers Psychology

Conferences

- Eurohaptics 2018
- UIST 2018
- World Haptics 2017

TRAININGS AND SUMMER SCHOOLS

September 2017

HIMSS 2017 – Summer School on Human Machine Interaction, Maratea, Italy

June 2015

CAMBAM summer school on nonlinear dynamics in biological systems – McGill University, Montréal, Canada

May 2015

Summer school on Bioinspired sensing – University of Lille 1, France

TEACHING EXPERIENCE

University

MATLAB introduction course at University of Tübingen 2018-2019

Seminar about critical scientific reading at Université catholique de Louvain Lkine1033 (2014-2016)

- Workshops** Workshop on the sense of touch for schools with the association Science Infuse (2016)
- High-school** Teaching Mathematics at high-school level: lecturing to a group of high school pupils with specific difficulties in Mathematics as part of a community program in 'Institut de la Sainte-Famille d'Helmet - section secondaire' (2008-2009)