

Julien Gori

Age 27, French Citizen

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Titles

Normalien, French civil servant, ENS alumni.

PhD, Telecom ParisTech, Université Paris-Saclay, Paris.
Networks, Information and Communications

Profile

My research takes place in Human Computer Interaction (HCI) and is pursued using tools that are classically known in electrical engineering but less so in HCI. I have spent my PhD developing various models of performance for goal-directed movements, which take advantage of Shannon's information-theory and which address the ubiquitous pointing interaction. I am currently working on operationalizing some of the results obtained during my PhD so that they can serve the HCI community, by providing more general, robust, and efficient methods for estimating pointing performance.

Education

- 2015–2014 **MSc Information Sciences and Technologies (M2 IST - SAR)**, *ENS Cachan (now ENS Paris-Saclay) - Supelec (now Centrale-Supelec) - Université Paris-Sud*, Gif-sur-Yvette.
Masters Degree in digital communications for wireless systems (telecommunications)
- 2014–2013 **Mastère FESup-PA**, *ENS de Cachan (now ENS Paris-Saclay)*, Cachan.
Masters in applied physics and electrical engineering
- 2011 **Admission sur concours**, *Ecole Normale Supérieure de Cachan (now ENS Paris-Saclay)*, Cachan.
- 2009–2011 **Classes préparatoires PT*-PTSI**, *Lycée Chaptal*, Paris.
Preparatory school, classes in maths, physics, and engineering sciences
- 2009 **Baccalauréat**, *Lycée Vincent van Gogh*, Den Haag.
High School diploma In sciences

Research Experience

- Since 02-2019 **Post-Doctoral Studies**, *Ex)Situ, LRI, INRIA, Université Paris-Sud*, Gif-sur-Yvette.
- 2018-2015 **PhD studentship**, *LTCI, Telecom ParisTech*, Paris.
Modeling the speed-accuracy tradeoff using the tools of information theory.
- 2015 **Research Internship**, *LTCI, Telecom ParisTech*, Paris.
Reconciling Shannon's information theory and Fitts' law.
- 2014 **Research Internship**, *SATIE, ENS Cachan*, Cachan.
Water height estimation through high-frequency analysis of waveguide impedance.
- 2013 **Research Internship**, *IR4M, Université Paris-Sud, Orsay*.
Image processing for Pulmonary MRI in free breathing conditions with ultra short echo time.

Teaching Experience

- 2018-2015 **Tutorial and Practical classes (3 × 64 hours)**, *Telecom ParisTech*, Paris.
INF104 (Practical work in operating systems and C); ELEC101 (Practical work in electronics for signal acquisition systems); RES207 (Tutorial classes in information theory for networks); PAF (Electronics projects - Creating tilt-controlled musical effects for an electrical guitar & Analog electronic implementation of error-correcting codes via deep-learning); PACT (Multidisciplinary project - project tutor)
- 2015-2014 **Tutorial Classes (128 hours)**, *INSEP (Institut National du Sport, de l'Expertise et de la Performance)*, Paris.
Maths and physics classes for students preparing the French Baccalauréat examination.
- 2014 **Practical Classes in Power Electronics (20 hours)**, *CNAM Paris*, Paris.
Practical classes (control of electrical motors) for master students in engineering.

Reviews

I have reviewed for the following conferences

- in HCI: CHI, UIST, MobileHCI, NordiCHI (ACM)
- in Electrical Engineering: SMC (IEEE)
- in Signal Processing: EUSIPCO (EURASIP)

Grants - Awards

- 2018 **Prix de thèse Télécom ParisTech**, Nominated for best thesis.
2015 **CDSN**, Contrat Doctoral Spécifique aux Normaliens.
PhD funding awarded to some normaliens, based on their academic results.

Languages

French		<i>Mother tongue</i>
Dutch	NT2 (Nederlands als Tweede Taal)	<i>Advanced</i>
English	IELTS 7.5/9, TOEIC 965/990	<i>Advanced</i>

Publications (recap)

Proceedings	ACM CHI (2), IFIP INTERACT (1), IEEE SMC (1)
Journals	ACM TOCHI (1)
Posters & Presentations	Talk at EMPG 2015, Poster at ISPOR 2017

Publications

- [DKG⁺17] E. Duteil, M. Kandel, J. Gori, S. Roze, and I. Borget. Method of extrapolation: Estimation of the impact of the proportional hazard assumption on the efficacy estimation. *Value in Health*, 20(9):A756–A757, 2017.
- [Gor] Gori, J. and Rioul, O. and Guiard, Y. Reconciling Fitts' law with Shannon's information theory. European Mathematical Psychology Group Meeting (EMPG 2015). Padua, Italy, Sept. 1-3, 2015.
- [GR18a] J. Gori and O. Rioul. A kinematic information-theoretic transmission scheme for goal-directed movements. *CoRR*, abs/1804.05021, 2018.
- [GR18b] Julien Gori and Olivier Rioul. Information-theoretic analysis of the speed-accuracy tradeoff with feedback. In *2018 IEEE International Conference on Systems, Man, and Cybernetics (SMC)*, pages 3452–3457. IEEE, 2018.
- [GR19] Julien Gori and Olivier Rioul. Regression to a linear lower bound with outliers: An exponentially modified gaussian noise model. In *submitted to EUSIPCO 2019*. EURASIP, 2019.
- [GRG17] J. Gori, O. Rioul, and Y. Guiard. To miss is human: Information-theoretic rationale for target misses in Fitts' law. In *Proceedings of the 2017 CHI Conference on Human Factors in Computing Systems*, pages 260–264. ACM, 2017.
- [GRG18] J. Gori, O. Rioul, and Y. Guiard. Speed-accuracy tradeoff: A formal information-theoretic transmission scheme (FITTS). *ACM Trans. Comput.-Hum. Interact.*, 25(5):27:1–27:33, September 2018.
- [GRGBL17] J. Gori, O. Rioul, Y. Guiard, and M. Beaudouin-Lafon. One Fitts' law, two metrics. In *IFIP Conference on Human-Computer Interaction*, pages 525–533. Springer, 2017.
- [GRGBL18] J. Gori, O. Rioul, Y. Guiard, and M. Beaudouin-Lafon. The perils of confounding factors: How Fitts' law experiments can lead to false conclusions. In *Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems*, page 196. ACM, 2018.