Arnaud Delorme, PhD
CNRS Principal Investigator and Professor

Education and training

INSTITUTION AND LOCATION	DEGREE	YEAR	FIELD OF STUDY
Paris XII University, France	~B. Sc.	1994	Mathematics & Physics
Paris XII University, France	~MSEE	1996	Cell Biology
Paris XII University, France	~MSEE	1996	Programming
Paul Sabatier University, Toulouse, France	Ph. D.	2000	Cognitive and Computational Neuroscience
Marine Biology Laboratories, Woods Hole, USA (20 participants)	-	2001	Workshop for the Analysis of Neural Data
FENS winter school, Kitzbuhel, Austria (35 participants).	-	2002	Dynamic aspects of brain functions: methodologies, concepts, models

Positions and Employment
1998-2000   PhD Student, CERCO laboratory, Toulouse III University, Toulouse, France
2001-2003   Research Associate, Computational Neurobiology Laboratory, The Salk Institute, La Jolla, CA
2004   Visiting faculty for the Birla Institute of Technology, Mumbay, India
2003-2005   Project Scientist, SCCN, INC, University of California San Diego, USA
2005-   CNRS Associate research scientist
2005-   Adjunct Faculty, University of California San Diego, USA

Significant career breaks after obtaining my PhD
2000-2002   Mandatory French military service as "coopérant" (16 months)

Links with industry
Spikenet technology: Inventor (25%), shareholder of the company, and developer of the original software.
Lilly pharmaceutical: 2-year academic consulting 2004-2006 (co-direction of 2 bio-statistics student).
NeuroSky human machine interface company: Paid consulting 2008-
EEGworks/Neurosync company: Paid consulting 2005-

Workshop organization: Principal organizer and presenter at 14 advanced EEG signal processing workshops (3 to 5 days): Aspet, France, 2007, 2009, 2011; San Diego, 2005, 2011. Co-organized (with the help of a local organizer) seven 3-day EEGLAB workshops: Porto, Portugal, 2005; Singapore, 2006; Santiago, Chile 2007; Brisbanne, Australia, 2009; Indiana, USA, 2009; Taiwan, 2010; Finland 2010.

Conference and symposium organization. Organizer "Advanced EEG signal analysis", Aspet, France, 2011 & 2013. Member of the organizing committee for the European Conference on Visual Perception, Toulouse, France, 2011. Organized an "Independent Component Analysis and Imaging Techniques" symposium at the Computational Neuroscience Meeting 2001 (Pacific Grove, USA). Organized a "Spike-time based plasticity" symposium at the Computational Neuroscience Meeting 2000 (Bruges, Belgium).

Funding obtained as a principal investigator

Project title	Ref	Role	Institution	Year	Amount
Neural correlate of intuition	234/12	PI	BIAL	2013-2015	39,000€
EEG analysis of mind wandering and alertness	JSH2-09-01	PI	ANR	2012-2015	140,000€
Mind wandering and air control safety	12050524	Co-PI	PRES	2012-2015	90,000€
Long term effect of meditation in children	661/10	Co-PI	BIAL	2009-2013	45,000€
Neural correlate of meditation experience	162/08	PI	BIAL	2009-2011	35,000€
Long term effects of neurofeedback	20080713365	PI	FRM	2009-2011	30,000€
Independent component analysis of EEG data	60919	Co-PI	CNRS	2009	30,000€
CNRS PhD fellowship on mind wandering	-	PI	CNRS	2008-2011	90,000€
French ministry PhD fellowship on BCI	-	PI	Gov.	2008-2011	90,000€

RO1 grant for EEGLAB software development*	-	Co-Inv.	NIH/USA	2008-2012	$620,000
Advanced EEG analysis workshop organization	-	PI	CNRS	2007-2013	38,000€
EEG correlate of meditation experience	-	PI	M&L/USA	2005	10,000€
RO1 grant for EEGLAB software development*	-	Co-Inv.	NIH/USA	2004-2008	$600,000

* I wrote the two NIH grants for Scott Makeig (PI) even though I was only a co-investigator on them. There is and there will be no funding overlap with the ERC grant requested and any other source of funding for the same activities that are foreseen in this project.

Student and other personnel supervision
2012-	Gautier Durantin, PhD student on mind wandering (application to air safety)
2007-2012	Claire Braboszcz, Master then PhD student on mind wandering and meditation
2008-2012	Romain Granchamp, PhD student on human machine interface
2011	Yoni Levy, post-doc on meditation research
2011	Vinthia Wirantana, research assistant
2011	Stephanie Hahusseau (MD), Master of NeuroPsychology on emotion and heart rate variability
2011	Jeff Schmitz, Programmer for the EEGLAB software project (collaboration with UCSD, USA)
2010	Helene Floriach, Master of NeuroPhysique on information transfer between brain areas
2009-2010	Stephanie Pornin, research assistant
2009	Julien Denis, Master of NeuroPhysique on EEG source analysis
2009	Nicolas Kazalis, Master at Athen University and Erasmus student on EEG source analysis
2007	Anouar Louattani, Master (1st year) in fundamental physics on MEG source localization
2007	Aude Rondeaux, Master (1st year) in fundamental physics on tools for EEG analysis
2006-2008	Toby Fernsler, Programmer for the EEGLAB software project (collaboration with UCSD, USA)
2005	Thibaut Bouvy, Master of Biostatistics, Co-direction with E. Ledent at Lilly pharmaceutical
2004	Delphine Pecqueur, Master of Biostatistics, Co-direction with E. Ledent at Lilly pharmaceutical
2003-2004	Hilit Serby, Programmer for the EEGLAB software project (at UCSD during my post-doc)

Editorial activities: Editor for the journals Frontiers in Psychology (section Perception Science) and Frontiers in Neuroimaging Studies. Editor of a special issue on "Mind Wandering" in Frontiers in Psychology (2013) in collaboration with J. Smallwood, J. Schooler, M. Mason, and J. Andrews-Anna (29 accepted contributions). Reviewer for more than 36 different peer-reviewed journals including PLOS One, Journal of Neuroscience and PNAS. Reviewer and panel member for ERC grant applications NEST and ITN (2008, 2010, 2011). Punctual reviewer for the Welcome Trust (UK), the MRC (UK), the ANR (France), the NSERC (Canada), the NRSO (The Netherland). Jury member for 6 PhD theses and one Master program. Remote evaluator for recruitment of university professor at the University of Athens (Greece).

Early achievements track-record
(46 publications: 39 peer review articles published plus 3 book chapters and 4 conference articles – 28 as lead or senior author). 3 articles submitted as senior author are not listed below.

Numbers of citations (when available) are taken from the Web of Science (Thompson Reuters). All of Arnaud Delorme's article as well as the bar graph on the next page are available publically from Thompson Reuters at http://www.researcherid.com/rid/F-8917-2011.

Publications as first or senior author
Delorme, A., Palmer, J., Oostenveld, R., Onton, J., and Makeig S. (2012) Linear EEG decompositions that are more independent include more near-dipolar components. *PLOS One*, 7(2). *Cited 10 times.*

Radin, R., Michel, L., Galdamez, K., Wendland, P., Rickenbach, R. and **Delorme A.** (2012) Consciousness and the double-slit interference pattern. *Physics Essays*: June 2012, Vol. 25, No. 2, pp. 157-171. *Number of citations unknown.*

Radin, DI., Vieten, C., Michel, L., **Delorme, A.** (2011) Electrocortical activity prior to unpredictable stimuli in meditators and nonmeditators. *Explore* 7(5):286-99. *Number of citations unknown.*

Braboszcz, C. and **Delorme, A.** (2011) Lost in thoughts: neural markers of low alertness during mind wandering. *Neuroimage*, 54(4):3040-7. *Cited 6 times.*

Grandchamp, R., **Delorme, A.** (2011) Single-trial normalization for event-related spectral decomposition reduces sensitivity to noisy trials. *Frontier in psychology*, 2:236. *Number of citations unknown.*

Delorme, A., Mullen, T., Kothe, C., Bigdely-Shamlo, N., Akalin, Z., Vankov, A., Makeig, S. (2011) EEGLAB, MPT, NetSIFT, NFT, BCILAB, and ERICA: New tools for advanced EEG/MEG processing. *Computational Intelligence*, article ID 130714. *Citation 6 times.*

Delorme, A., Richard, G., Fabre-Thorpe, M. (2010). Key visual features for rapid categorization of animals in natural scenes. *Frontier in psychology*, 1:21. *Number of citations unknown.*

Delorme, A., Westerfield, M., Makeig, S. (2007) Medial prefrontal theta bursts precede rapid motor responses during visual selective attention. *Journal of Neuroscience*, 27(44):11949-11959. *Cited 26 times.*

Delorme, A., Sejnowski, T., Makeig, S. (2007) Improved rejection of artifacts from EEG data using high-order statistics and independent component analysis. *Neuroimage*, 34, 1443-1449. *Cited 160 times.*

Delorme, A., Makeig, S. (2004) EEGLAB: an open source toolbox for analysis of single-trial EEG dynamics including independent component analysis. *Journal of Neuroscience Methods*, 134(1), 9-21. *Cited 1593 times.*

Makeig, S., Debener, S., Onton, J., **Delorme, A.** (2004) Mining event-related brain dynamics. *Trends in Cognitive Neuroscience*, vol 8(5), 204-210. *Cited 316 times.*

Delorme, A., Rousselet, G., Fabre-Thorpe M. (2004) Interaction of Bottom-up and Top-down processing in the fast visual analysis of natural scenes. *Cognitive Brain Research*, 19(2), 103-113. *Cited 39 times.*

Delorme, A., Makeig, S. (2003) EEG changes accompanying learning regulation of the 12-Hz EEG activity. *IEEE Transactions on Rehabilitation Engineering*, 11(2), 133-136. *Cited 37 times.*

Delorme, A. (2003) Early Cortical Orientation Selectivity: How Fast Shunting Inhibition Decodes the Order of Spike Latencies. *Journal of Computational Neuroscience*, 15, 357-365. *Cited 19 times.*

Delorme, A., Thorpe, S. (2003). SpikeNET: An Event-driven Simulation Package for Modeling Large Networks of Spiking Neurons, *Network: Comput. Neural Syst.*, 14, 613:627. *Cited 42 times.*

Delorme, A, Makeig, S., & Fabre-Thorpe, M. & Sejnowski (2002). From single-trial EEG to brain area dynamics. *Neurocomputing*, 44-46, 1057-1064. *Cited 36 times.*

Delorme, A., Thorpe, S. (2001) Face processing using one spike per neuron: resistance to image degradation. *Neural Network*s, 14(6-7), 795-804. *Cited 64 times.*

Delorme, A., Perrinet, L., Thorpe, S. (2001) Network of integrate-and-fire neurons using Rank Order Coding B: spike timing dependant plasticity and emergence of orientation selectivity. *Neurocomputin*g, 38-40(1-4), 539-545. *Cited 31 times.*

Delorme, A., Richard, G., & Fabre-Thorpe, M. (2000). Ultra-rapid Categorisation of natural scenes does not rely on color cues: A study in monkeys and humans. *Vision Researc*h, 40(16), 2187-2200. *Cited 79 times.*

Delorme, A., Gautrais, J., VanRullen, R., & Thorpe, S.J. (1999). SpikeNET: A simulator for modeling large networks of integrate and fire neurons. *Neurocomputin*g, 26-27, 989-996. *Cited 57 times.*

Delorme, A., Richard, G., & Fabre-Thorpe, M. (1999). Rapid processing of complex natural scenes: a role for the magnocellular pathway. *Neurocomputin*g, 26-27, 663-670. *Cited 5 times.*

Book chapters (Number of citations unknown)

Delorme, A., Kothe, C., Bigdely, N., Vankov, A., Oostenveld, R., Makeig, S. (2010) Matlab Tools for BCI Research? In "human-computer interaction and brain-computer interfaces". Editors : Tan, D. and Nijholt, A. Springer Publishing.

Braboszcz, C., Hahusseau, S., **Delorme, A.** (2010) Meditation and Neuroscience: from basic research to clinical practice. In "Integrative Clinical Psychology, Psychiatry and Behavioral Medicine: Perspectives, Practices and Research". Editor: R. Carlstedt. Springer Publishing.

Delorme, A. (2005) Statistical Methods. Commissioned by Willey (Editor) for the Encyclopedia of Medical Device and Instrumentation, vol 6, pp 240-264. Wiley interscience.

4 journal-length articles in peer reviewed conference proceedings (Number of citations unknown)

Grandchamp, R., Braboszcz, C., Makeig, S., **Delorme A.** (2012) Stability of ICA decomposition across within-subject EEG datasets. Proceedings of the *34th Annual International Conference of the IEEE Engineering in Medicine and Biology Society*, Aug 28-Sept 1, San Diego, CA

Delorme, A., Makeig, S. (2009) Open Source Programming for Interpreted Language: Graphic Interface and Macro Bridging Interface. *2009 Fifth International Conference on Signal-Image Technology & Internet-Based Systems (SITIS, indexed in IEEE)*, Nov. 29 2009-Dec. 4 2009, 430-434.

Grandchamp, R., **Delorme, A.** (2009) NeuroTRIP: a Neurofeedback experiment design platform using Independent Component Analysis. *2009 Fifth International Conference on Signal-Image Technology & Internet-Based Systems (SITIS, indexed in IEEE)*, Nov. 29 2009-Dec. 4 2009, 451-457.

Delorme, A., Makeig, S. & Sejnowski, T. (2001). Automatic Artifact Rejection for EEG Data Using High-Order Statistics and Independant Component Analysis, *Proceedings of the 3rd International Independant Component Analysis and Blind Source Decomposition Conference*, December 9-12, San Diego (USA).

Honors and awards. 1992-1996, Ranked Major (first) for B. Sc. (>1,000 students) and both MSSE (passed simultaneously). 2002, Bretencourt Schueller Fundation Young investigator award. 2006, ANT 10-year anniversary Young investigator award (one of 3) for exceptional contribution to the field of électro-encephalography research.

Gave invited conference presentation (paid expenses). German Neuroscience Conference (Gottingen, 2005). Brain Dynamics Symposium (Berlin, 2005). Brain Mind Institute Conferences (Geneva, Switzerland, 2005). Dictionary of Atom workshop (Montreal, 2009). Chia Tung EEG symposium (Taiwan, 2010). Jyväskylä ICA conference (Finland, 2010).

Gave oral presentation at other major conferences. International conference on Yoga and Health, Haridwar, India, 2011. SANDS conference, San Rafael, CA, USA in 2011, 2010, and 2009. Human Brain Mapping, San Francisco, USA, 2010. Society for psychological research, Portland, USA, 2010. EPIC ERP conference, Indiana, USA, 2010. Jacques Cartier Conference, Lyon, France, 2009. International Conference on Meditation for Pain Management, Rishikesh, India, 2009. Toward a science of consciousness, Tucson, USA, 2004, 2006, 2010 and 2012. 9th SITIS conference, Indonesia, 2008. 3rd International Conference on ICA and Blind Source Separation, Del Mar, USA, 2001. Annual French Neuroscience Meeting 2001, Toulouse, France. Annual Symposium on Neural Computation 2001, La Jolla, USA. Annual Computational Neuroscience Meeting 2001, Pacific Grove, USA. Annual Meeting of the French Society of Psychology 1999, Toulouse, France.

Citation Distribution by year

Total Articles in Publication List: **46**
Articles With Citation Data: **32**
Sum of the Times Cited: **3341**
Average Citations per Article: **104.41**
h-index: **21**
Last Updated: **02/19/2013 00:19 GMT**