



# Adrian Ernesto Radillo

## *Curriculum Vitae*

*The world is complex, let's try to understand it!*

### Research

**Interest:** *mathematical modeling of perceptual decision making in mammals*

- Investigate the neural code in the mammal brain for perceptual decision making.
- Derive the ideal-observer strategies in current experimental settings.
- Work towards an ecological theory of optimality.

#### Theoretical neuroscience publications

- (In press) **Radillo, A. E.**, Veliz-Cuba, A., Josić, K., & Kilpatrick, Z. P., *Evidence accumulation and change rate inference in dynamic environments.*, Neural Computation, arXiv:1607.08318.  
2017 peer-reviewed We derive an optimal strategy for accumulating evidence in a changing environment, as well as a potential neural network implementation.

#### Clinical psychology publications

- 2012 peer-reviewed Donard, V., Berget, P., Cramet, M., Gantelmy d'Ille, V., Mörch, C., . . . , **Radillo, A.**, & Virole, B., *Identity and relational stakes in MMORPG*, Pratiques Psychologiques, 18(1), 23-36.
- 2010 book Virole, B., & **Radillo, A.**, *Cyberpsychologie*, Paris : Dunod.  
Essay on how video games and new technologies in general, affect both the theory and the practice of contemporary clinical psychology.
- 2009 peer-reviewed **Radillo, A.**, *L'expérimentation de l'utilisation des jeux vidéo en remédiation cognitive*, Enfance & Psy, n° 44, Paris : Erès.  
Short summary of my Master's thesis in psychology, on cognitive rehabilitation of autistic children through video games.

### Education

- 2014–2018 **(Expected) Ph.D. Mathematics**, *University of Houston*, Houston, TX, USA.  
Advisors: Krešimir Josić & Zachary P. Kilpatrick.
- 2011–2014 **B.Sc. Mathematics**, *University of Warwick*, Coventry, UK.
- 2004–2009 **M.A. Clinical psychology**, *Ecole de psychologues praticiens*, Paris, France.  
Advisor: Véronique Donard.

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## Professional Experience

- 2013-2016 **Teaching Assistant**, *Several undergraduate level courses*, Univ. Warwick/UH, UK/USA.  
Calculus, Statistics, Mathematical biology, French.
- 2010 **Clinical psychologist**, *Adult psychiatry service*, General Public Hospital of Dreux, France.  
(whole year) Counseling, support group animation, personality and cognitive skills assessment for patients suffering from grave mental illnesses. Close collaboration with psychiatrists, nurses and other psychologists.

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## Research Involvement

### Conferences

- 2017 Computational and Systems Neuroscience, (CoSyNe), Salt Lake City, UT.  
Poster: *Change rate inference in dynamic environments*.
- 2017 Gulf Coast Consortium for Theoretical & Computational Neuroscience, (GCC-TCN), Houston, TX.  
Poster: *Change rate inference in dynamic environments*.
- 2016 GCC-TCN, Houston, TX.  
Poster (**Award for best poster presentation**): *Evidence accumulation and change rate inference in dynamic environments*.
- 2015 UT Austin Conference on Learning and Memory, Austin, TX.

### Workshops

- 2017 Memory School (MATHMEM), Centre de Recerca Matemàtica, Barcelona, Spain.  
Topic: biology and mathematics of memory  
Poster: *Change rate inference in dynamic environments*.
- 2016 Gene Golub SIAM Summer School, Drexel University, Philadelphia, PA.  
Topic: SDEs and wave propagation  
Poster: *Evidence accumulation and change rate inference in dynamic environments*.
- 2016 CoSyNe - main conference & workshop, Salt Lake City, USA.  
Poster: *Evidence accumulation and change rate inference in dynamic environments*.

### Internships

- 2015 **Visiting student**, *Instituto de Fisiología Celular*, Universidad Autónoma de México,  
(Fall) Mexico City, Mexico.  
Ranulfo Romo's lab  
Electro-physiology on macaque in tactile frequency discrimination task.
- 2012 **Research Intern**, *Institute of Digital Healthcare*, Coventry, UK.  
(summer) Project on signal processing of sound-evoked EEG signals.
- 2006–2009 **Psychology Intern**, *Several public hospitals*, Paris/Rivière du Loup, France/Canada.  
More than 1600 hours of internship with main emphasis on psychopathology and cognitive rehabilitation.

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## Awards

- 2014-2016 **Presidential Cullen and Stella Ehrhardt Fellowship**, \$4,000, University of Houston.
- 2012 **Undergraduate Research Scholarship Scheme**, £1,600, University of Warwick.

————— **Computing Skills**  
Basic C++, R, Visual Basic, Python  
Intermediate Bash, MATLAB, L<sup>A</sup>T<sub>E</sub>X, git

————— **Spoken Languages**  
Fluent **French, Spanish**  
Advanced **English**

*Mother tongues*  
*Professional proficiency*

————— **Interests**  
- Music  
- Dance  
- Programing  
- Philosophy

- Yoga  
- Martial Arts  
- Psychology  
- Acting

*This CV was built on top of a template created by Xavier Danaux (xdanaux@gmail.com)*

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