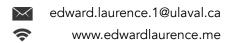
## **EDWARD LAURENCE**

Updated March 16, 2017



#### **EDUCATION**

2016 - [2019] Ph.D. in Physics, Université Laval

Supervisors: Pr Louis J. Dubé, and Patrick

Desrosiers Ph.D

2014 - 2016 M.Sc. in Physics, Université Laval

Complex networks and connectomics: from

hierarchy to functions

Supervisors: Pr Louis J. Dubé, Patrick Desrosiers

Ph.D, and Pr Daniel Côté

2011 - 2014 B.Sc. in Physics, Université Laval

## **WORK EXPERIENCE**

2014 - 2017 Teaching assistant, Université Laval

Correction & Answering questions

Non-linear dynamics, chaos and complexity

Numerical physics Statistical physics

2013 Undergraduate research assistant

Dynamica research group, Université Laval under the supervision of Pr. Louis J. Dubé

2012 Undergraduate research assistant

Institut National de la Recherche Scientifique under the supervision of Pr. Alain Mailhot

#### **ENTREPRENEURSHIP**

2017 - Founder of Sérum

Programmation of a web plugin to detect fake news. Organization of an hackathon.

www.factserum.co

2015 - Founder of Wasper

Programmation of iOS mobile applications for iPhone and iPad. Start-up development.

www.wasper.co

# VOLUNTEERING AND INVOLVEMENT

Violinist in palliative care

Hôpital Saint François d'Assise

2015 - 2016

**Tutor in science** 

Cégep Garneau 2009 - 2014

Chief editor

Student yearbook (100 pages)

2014

Director of physics student

newspapers

2013 - 2014

Volunteer

Promotional activities of Université Laval

2009 - 2015

## **COMPETENCES**

Languages

French > Native

English > Advanced

Spanish > Basic

**Informatics** 

C/C++, Python, Matlab/GNU Octave, GNU/Linux, R, LaTeX, Swift, Objective-C, HTML/CSS, Django, MySQL, Ruby,

Javascript, I18n

## **AWARDS**

2017	Sentinel North fellowship Sentinel North, Université Laval 18 000\$
2015-2016	Graduate research award Fond de recherche Nature et technologies (FRQNT) 15 000\$
2015	Business ideas contest (for Wasper) Entreprenariat ULaval 100\$
2012	Undergraduate research award Natural Sciences and Engineering Research Council of Canada (NSERC) 4 500\$
2011	Franco-Rasseti scholarship Département de physique, de génie optique et d'optique, Université Laval 1 000\$
Recognition	
2014	Outstanding Poster Award 9th International School and Conference on Network Science, Berkeley
2012	Best oral in geophysics Canadian Undergraduate Physics Conference, Vancouver
2010-2014	Participation to Quebec's semi-final Le Championnat International des Jeux Mathématiques et Logiques

### **SCIENTIFIC CONTRIBUTIONS**

## Papers in refereed journals

- 2015 Complex networks as an emerging property of hierarchical preferential attachment L. Hébert-Dufresne, E. Laurence, A. Allard, J.-G. Young, and L. J. Dubé Phys. Rev. E., 92 062809
- 2014 Relationship between surface temperature and extreme rainfalls: a multi-timescale and event-based analysis

  G. Panthou, A. Mailhot, F. Laurence, and G. Talbot, I.

G. Panthou, A. Mailhot, **E. Laurence**, and G. Talbot, J. Hydrometeor., **15**, 2014, DOI: 10.1175/JHM-D-14-0020.1

## **Preprint**

- 2017 Susceptible-infected-susceptible dynamics on the rewired configuration model G. St-Onge, J.-G. Young, E. Laurence, C. Murphy, and L. J. Dubé arXiv, 1701.01740
- 2016 Finite size analysis of the detectability limit of the stochastic block model J.-G Young, P. Desrosiers, L. Hébert-Dufresne, **E. Laurence**, and L. J. Dubé arXiv, 1701.00062

## Selected presentations

The speaker noted in bold





(2017) Persistent activity of neural dynamics on hierarchical networks



E. Laurence, P. Desrosiers, and L. J. Dubé

12th International School and Conference on Network Science, Indianapolis (USA)

2016 Ensemble symmetries and the detectability limit of finite size stochastic block models



**J.-G. Young,** L. Hébert-Dufresne, E. Laurence, P. Desrosiers, and L. J. Dubé 11th International School and Conference on Network Science, Seoul (Korea)

2016 Time-dependent Spatial Growth of Complex Networks



**C. Murphy,** E. Laurence, G. St-Onge, J.-G. Young, and L. J. Dubé 11th International School and Conference on Network Science, Seoul (Korea)

2015 Exact analytical solution of binary dynamics on networks



E. Laurence, J.-G. Young, S. Melnik, and L. J. Dubé

10th International School and Conference on Network Science, Saragosse (Spain)

Complex networks are an emerging property of hierarchical preferential attachment



L. Hébert-Dufresne, E. Laurence, A. Allard, and J.-G. Young

9th International School and Conference on Network Science, Berkeley (USA) **Outstanding Poster Award** 

2014 Relationship between surface temperature and extreme rainfalls: a multi-timescale and event-based analysis



A. Maillot, and E. Laurence

2013 Joint Scientific Congress of the CMOS, CGU and CWRA, Saskatoon (SK)

2013 A hierarchical approach for complex networks



E. Laurence

Canadian Undergraduate Physics Conference, Hamilton (ON)

2013 Étude des relations entre les précipitations extrêmes et la température



E. Laurence, and A. Mailhot

Colloque la recherche hydrologique au Québec, Québec (QC)

Relationship between surface temperature and extreme rainfalls: a multi-timescale and eventbased analysis



E. Laurence, and A. Mailhot

Canadian Undergraduate Physics Conference, Vancouver (CB)