

## 1 Personal and Contact Information

Name: Achilles Tzioufas (offic. Achillefs).

Website: <http://www.achillefstzioufas.com>

Preprints site: [https://arxiv.org/a/tzioufas\\_a\\_1.html](https://arxiv.org/a/tzioufas_a_1.html)

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## 2 Education

- *Doctor of Philosophy (PhD) in Probability & Statistics (10/05-06/12)*

Heriot-Watt University, *Edinburgh, Scotland*

Department: Actuarial Mathematics and Statistics

Thesis title: Contact Processes and Interacting Particles (ended 11/11)

Adviser: Stan Zachary

- *Bachelor of Science (B.Sc.) in Statistics (09/00-10/04)*

Athens University of Economics and Business (AUEB), *Athens, Greece*

Major: Statistics

Graduated with Distinction ('Arista' - Summa Cum Laude equivalent)

Valediction of Statistics Dept.

Mentors: Harry Pavlopoulos and Michael Zazanis

## 3 Appointments

- *Postdoc U. de Buenos Aires (03/12 - 12/15)*

Departamento de matemática Facultad de Ciencias Exactas

Adviser: Pablo A. Ferrari

- *Postdoc U. de São Paulo, 06/16-*

Instituto de Matemática e Estatística

L. R. Fontes and J. A. Galves

## 4 Research

### 4.1 Publications

1. Tzioufas, A (2011). On the growth of the one-dimensional reverse immunization contact processes. *J. of Appl. Probability* **48(3)**. 611-623.
2. Tzioufas, A. (2011). Contact processes on the integers. Ph.D. Thesis, Heriot-Watt U.
3. Tzioufas, A. (2013). Convergence rates for the one-dimensional three state contact process. *J. of Stat. Physics* **152(2)**: 388-398.
4. Tzioufas, A. (2015). Regeneration of extremal particles for one dimensional contact processes. *Markov Proc. and Related Fields* **21(2)**: pp. 275-282.
5. Tzioufas, A. (2016). The entirely coupled region of supercritical contact processes. *J. of Appl. Probability* **53(3)**: 925-929.
6. Tzioufas A.(2017). The randomly fluctuating hyperrectangles are spatially monotone. *Stat. and Probab. Lett.* **130**: 76-79.
  - *To appear*
7. Tzioufas, A. The central limit theorem for supercritical oriented percolation in two dimensions. *J. of Stat. Physics*
  - *Under Second review*
8. Tzioufas, A. Monotonicity and non-monotonicity of simple spatial epidemic models. *Braz. J. Probab. Stat.*.
9. Tzioufas A. The several dimensional gambler's ruin problem. *Markov Proc. and Related Fields*.
  - *Submitted*
10. Tzioufas A. On highly supercritical percolation in two dimensions. (EJP: 15-04).
  - *Ongoing*
11. Tzioufas A. Multiple ergodic averages beyond stationary (26 pp.)
12. Meester R.W.J. and Tzioufas, A. On continuity of certain percolation quantities (10pp),
13. A note on spatial monotonicity of one-dimensional spin systems (12pp).
  - *Completed research*
14. The Law of the Iterated Logarithm for supercritical 2D oriented percolation.
15. Tzioufas, A. Critical and Subcritical three state oriented percolation: strong survival of non-persistent processes and convergence rates.

## 4.2 Unpublished works and Proposal

- *Unpublished*
  1. with Stan Zachary. New proofs of survival properties of the one-dimensional basic three-state contact process. (2007). HWU report.
  2. with Stan Zachary. Non-nearest neighbours one-dimensional three-state contact processes. (2009). HWU report.
- *Grant Proposal*
  3. Tzioufas, A., (2017). Percolation and Random Walks. *arXiv:1511.01813*.

## 5 Areas of Teaching Expertise

### ♣ *Graduate courses*

Advanced topics in Probability Theory. Percolation Theory, Interacting particle systems, Random Walks, Ergodic theory, Statistical mechanics.

### ◆ *Probability*

Introduction to Probability Theory (various levels); Probability with Martingales; Stochastic Processes. Mathematical Analysis; Linear Algebra; Measure Theory.

### ♥ *Statistics*

Mathematical Statistics; Bayesian Statistics; Simulation and MCMC; Risk Theory; Time Series.

### ♠ *Distinct Experience*

Taught classes for various modules in Probability and Statistics at HWU and at AUEB (Markov chains and Random walks, Prof. T. Konstantopoulos, and Stochastic Processes and Game Theory, Prof. M. Zazanis.)

## 6 PC Skills, Service

### 6.1 PC Skills

- IT : LaTeX, TeX, MS Windows, MS Office
- Programming: Matlab, R, Wolframalpha, Spss, Minitab.

### 6.2 Academics

- Mentoring: PhD and Postdocs research advising at UBA and USP.
- Invitation for Editorial board member of the Open statistics & probability journal (rejected).
- Academic Service. Reviewer for various Probability Journals.

## **7 Languages**

- English: Fluent. Full professional working proficiency.
- Spanish: Fluent. Professional working proficiency.
- Portuguese: Advanced. Limited working proficiency.
- Greek: Native speaker

## **8 Demographics**

- Born: Greece, 23.02.1982.
- Citizenship: Greek (EEA), permanent abroad-resident (awarded after 12 years+).
- Civil status: not married

## **9 Scholarships**

- PNP/Capes 07/17-07/18
- Fapesp (Brazil), 06/16-06/17
- Agencia and Conicet Studentships, 03/13-03/14 and 03/14-10/15
- Heriot-Watt PhD Studentship 10/05-10/08
- State scholarship in 3rd and 4th year of Bsc studies

## **10 Conferences, talks and academic visits**

- Visiting Professor posts held: IMPA, Rio de Janeiro (12/12-02/13); U of Sao Paulo (10/13-12/13); Heriot-Watt University, Edinburgh (02/16-05/16).
- Conferences Attended (week-long): Eurandom, Eindhoven 2006 ; Bath, School 2007 ; Cimpa School, Mar del plata 2012, SPA, Buenos Aires 08/14; CLAPEM, Cartagena de Indias, Colombia, 09/2014; Athens probability Colloquium 2014 and 2015; Cimpa School, Buenos Aires, July 6-17, 2015. 12/2016, Santiago, Chile, CMM. Escola Brasileira de Probabilidade 08/17.
- Invited talks (week-long visits): USP at Sao Carlos (02/14-02/14); Pontificia U Catolica de Chile (03/14); U of Athens, Kapodistriako (06/14); Brazilian School of probability (08/14); American U of Beirut (02/16); University of Bielfeld (05/17). Universidade de São Paulo (09/17)

## 11 Referees

- Prof. Pablo Ferrari (University of Buenos Aires, Argentina)  
+541145763390; [pferrari@dm.uba.ar]
- Prof. Nicolas Lanchier (Arizona State University, US)  
480-965-3870 ; [nlanchie@asu.edu]
- Prof. Thomas Mountford (EPFL, Switzerland, Chair of Stochastic Processes)  
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- Prof. Emeritus Stan Zachary (Heriot-Watt University, Scotland)  
+441314513203 ; [s.zachary@hw.ac.uk]
- Prof. Jan Swart (UTIA, Czech Republic). [swart@utia.cas.cz], 420-26605-2584
- Prof. Michael Damron (Georgia Tech, US) [mdamron6@gatech.edu]; +1 404-894-4311
- Prof. Cristian Coletti (UFABC, Brazil). [cristian.coletti@ufabc.edu.br]

April 23, 2018  
A. Tzioufas