

Adina Iftimi, PhD

C/Doctor Moliner, 50 – 46100 Burjassot-Valencia, Spain

☎ (+34) 635 992819 • ✉ adina.iftimi@uv.es • 🌐 www.uv.es/iftimi

Department of Statistics and Operational Research, University of Valencia

Research interests: point processes, diagnostic tools for public health and epidemiology, genomic breast cancer epidemiology

Last update: 7/03/2018

Education

PhD defended on 15/06/2017

sobresaliente (highest grade) cum laude

UNIVERSITY OF VALENCIA

2013–2017

Title: Methods for the statistical analysis of spatio-temporal data

PhD supervisors: Ottmar Cronie, Francisco Martínez-Ruiz and Francisco Montes

President: Peter Diggle, Distinguished Professor, Faculty of Health and Medicine, University of Lancaster

Reviewers:

Giada Adelfio, Università degli Studi di Palermo

Guillermo Ayala Gallego, University of Valencia

Ana Corberán Vallet, University of Valencia

Ana Debón Aucejo, Politechnic Univeristy of Valencia

Pablo Gregori Huerta, University Jaume I, Castellón

Master's Degree in Biostatistics

UNIVERSITY OF VALENCIA

2012–2013

Bachelor's Degree in Mathematics

UNIVERSITY OF CLUJ-NAPOCA

2007–2010

graduated Second Class Degree

Experience

Postdoc

KAROLINSKA INSTITUTE

2017–present

- Part of Linda Sofie Lindström Lab, working in Genomic Breast Cancer Epidemiology at the Department of Biosciences and Nutrition

Teaching Assistant in Statistics

UNIVERSITY OF VALENCIA

2015–2017

- Biostatistics, Degree in Optics and Optometry, Faculty of Physics 2015/2016
- Mathematics II, Degree in Environmental Sciences, Faculty of Biological Science 2015/2016
- Statistics, Degree in Pharmacy, Faculty of Pharmacy 2016/2017
- Basic Statistics, Degree in Mathematics, Faculty of Mathematical Science 2016/2017

PhD student

UNIVERSITY OF VALENCIA

2013–2017

Founded by Ministry of Education, Culture and Sports, grant FPU12/04531

Junior Researcher (Pre-doctoral)

UNIVERSITY OF VALENCIA

2013

- Worked directly with Professor Francisco Montes from the Department of Statistics and Operational Research
- Researching and writing the MSc thesis *Spatial epidemiology of chicken pox in the area of Valencia (using INLA)*
- Researching the use of INLA in different spatial studies

Research Intern

UNIVERSITY OF VALENCIA

2011–2013

- Worked in the Statistics Department of City Council, Valencia
- Collaborated in the writing and editing of more than 20 publications, from which *The Annual Statistics of Valencia 2012*, *The labor market of Valencia 2012*, *Population Statistics 2012* and *Mortality Statistics 2008-2011* are to be mentioned
- Collaborated in the development of a management tool of the City Council data base using Oracle Business Intelligence

Languages

Rumanian: Mother tongue

Spanish: Bilingual

English: Proficient

Cambridge Proficiency Exam, Escuela Oficial de Idiomas (C2)

Valencian: Basic

Junta Qualificadora Valencià (B1)

French: Basic

Publications and theses/dissertation

Peer reviewed papers.....

1. **Iftimi, A.**, Martínez-Ruiz, F., Míguez Santiyán A. and Montes, F. *Spatio-temporal cluster detection of chickenpox in Valencia, Spain in the period 2008-2012*, *GeoSpatial Health*, volume 10:341 (2015), 54-62, <http://dx.doi.org/10.4081/gh.2015.341>.
2. **Iftimi, A.**, Montes, F., Míguez- Santiyán, A. and Martínez-Ruiz, F. *Space-time airborne disease mapping applied to detect specific behavior of varicella in Valencia, Spain*, *Spatial and Spatio-temporal Epidemiology* 14-15 (2015) 33-44. <http://dx.doi.org/10.1016/j.sste.2015.07.001>.
3. Míguez- Santiyán, A., **Iftimi, A.** and Montes, F. *Temporal association between influenza virus and respiratory syncytial virus (RSV): RSV as predictor for seasonal flu*, *Epidemiology and Infection*, 1-12 (2016) doi:10.1017/S095026881600090X
4. **Iftimi, A.**, Montes, F., Mateu, J. and Ayaad, C. *Measuring spatial inhomogeneity at different spatial scales using Hybrids of Gibbs point process models*, *Stochastic Environmental Research and Risk Assessment*, (2016) DOI 10.1007/s00477-016-1264-0.
5. Sánchez-Barricarte, J., Carracedo, P., **Iftimi, A.**, Debón, A. and Montes, F. *Evolution of life expectancy at birth in French départements over the period 1833-1982*, accepted, *Spatial Demography*, (2017) DOI 10.1007/s40980-017-0035-y.
6. Molinos-Senante, M., Sala-Garrido, R. and **Iftimi, A.** *Energy intensity modeling for wastewater treatment technologies*, *Science of the Total Environment* 630 (2018) 1565–1572.
7. Carracedo, P., Debón, A., Montes, F. and **Iftimi, A.** *Detecting spatio-temporal mortality clusters of European countries by sex and age*, accepted, *International Journal for Equity in Health* (2018).

In revision.....

1. **Iftimi, A.**, Cronie, O. and Montes, F. *The second-order analysis of marked spatio-temporal point processes, with an application to earthquake data*, first revision Scandinavian Journal of Statistics (2018), arXiv:1611.04808.
2. **Iftimi, A.**, van Lieshout, M.N.M. and Montes, F. *A multi-scale area-interaction model for spatio-temporal point patterns*, second revision Spatial Statistics (2018), arXiv:1701.02887.
3. Flórez, K.C., Corberán-Vallet, A., **Iftimi, A.** and Bermúdez, J.D. *A Bayesian hierarchical model with an underlying cluster structure for the analysis of small area health data*, submitted to Computational Statistics & Data Analysis (2017).

Publications {contributor}.....

- o Steenbeek, A.G., Lieshout, M.N.M. van and Stoica, R.S. with contributions from P. Gregori, K.K. Berthelsen and **A. Iftimi**. *MPPBLIB, a C++ library for marked point processes*, CWI, (2016)

Theses/dissertation.....

- o *Methods for the statistical analysis of spatio-temporal data*, PhD thesis, University of Valencia. Supervisors: Cronie, O., Martínez-Ruiz, F. and Montes-Suay, F. *sobresaliente (highest grade) cum laude*
- o *Spatial epidemiology of chicken pox in the area of Valencia (using INLA)*, MSc thesis, University of Valencia. Supervisors: Montes-Suay, F. and Martínez-Ruiz, F. *graded 9 out of 10*
- o *Properties of starlike and convex functions with negative coefficients*, BSc thesis, University of Cluj Napoca. Supervisor: Salagean G. *highest distinction*

Publications {contributor of Statistics Department, City Council, Valencia}.....

- o *The Annual Statistics of Valencia*, 2012 (ISSN: 1889-2594)
- o *Population Statistics*, 2012
- o *Economic Activities in Valencia*, January 1, 2011 and January 1, 2012
- o *Survey on Equipment and Use of Communication and Information Technologies in Households*, 2011
- o *Vehicles Register of Valencia*, 2011 and 2012
- o *Statistical data of Valencia*, fourth quarter 2011, first, second, third and fourth quarter 2012
- o *Municipal districts and neighborhoods statistics of Valencia*, 2012
- o *Population over the age of 64 in Valencia*, 2012
- o *The labour market of Valencia*, 2012
- o *Mortality statistics by cause of death in Valencia*, 2009
- o *Statistic summary of Valencia*, 2011 and 2012
- o *Mortality Statistics 2008-2011*

Books.....

- o **A. Iftimi**, J. Mateu and P. Montes (Eds) *Proceedings of the 8th International Workshop on Spatio-Temporal Modelling* (2016). Universitat de Valencia, Spain, ISBN: 978-84-608-8468-2
- o *Anuario Estadístico de la ciudad de Valencia 2012* (2016). Ayuntamiento de Valencia, Spain, ISSN: 1889-2594

Courses and Congresses (participation)

Introduction to INLA
course given by Professor Daniel Simpson

Girona
March 2013

Summer school on spatial and spatio-temporal topics	Aalborg May 2013
UseR! International Conference of R	Albacete July 2013
Jornada de Divulgación y Aplicación de la Estadística	Valencia September 2013
V Jornadas de Usuarios de R	Zaragoza December 2013
Spatial Modelling with INLA (integrated nested Laplace approximation) <i>course given by Professor Janine Illian</i>	Montpellier June 2014
Workshop on Spatio-Temporal Statistics	Valencia July 2014
Primeras Jornadas Científicas de la SEB	Valencia January 2015
Introduction to Bayesian Inference <i>course given by Professor Anabel Forte</i>	Valencia January 2015
Clustering: Workshop on Clusters and Industrial Districts	Valencia May 2015
Spatial Statistics: Emerging Patterns	Avignon June 2015
Statistics for spatio-temporal data <i>course given by Professors Jun Yu, Sara Sjöstedt de Luna and Ottmar Cronie</i>	Umea September 2015
First Scotland and Valencia Workshop on Bayesian Statistics	Valencia January 2016
8th International workshop on spatio-temporal modelling: METMA VIII	Valencia June 2016
An introduction to INLA and SPDE <i>course given by H. Rue and H. Bakka</i>	Valencia June 2016
Spatial Statistics 2017: One World: One Health	Lancaster June 2017
IV Congreso de Jóvenes Investigadores <i>Real Sociedad Matemática Española</i>	Valencia September 2017

Posters and Presentations

Chickenpox in Valencia in the period 2008-2010 (poster) <i>presented @ Summer school on spatial and spatio-temporal topics</i>	Aalborg May 2013
Estudio de la varicela en Valencia en el periodo 2008-2012 (poster) <i>presented @ Jornada de Divulgación y Aplicación de la Estadística</i>	Valencia September 2013
Analising space-time point process data (oral presentation) <i>presented @ Seminari predoc Universitat de Valencia</i>	Valencia December 2013

A cluster method of Dynamis Life Tables (poster) <i>presented @ Workshop Spatio-Temporal Statistics</i>	Valencia July 2014
Spatio-temporal airborne disease mapping (oral presentation) <i>presented @ Workshop Spatio-Temporal Statistics</i>	Valencia July 2014
Influenza virus vs virus respiratorio sincitial (oral presentation) <i>presented @ XXXII Reunión Científica de la Sociedad Española de Epidemiología</i>	Alicante September 2014
Gripe y VRS: series temporales (oral presentation) <i>presented @ XXXII Reunión Científica de la Sociedad Española de Epidemiología</i>	Alicante September 2014
Asociación entre el virus influenza y el virus respiratorio sincitial (oral pres) <i>presented @ XXXII Reunión Científica de la Sociedad Española de Epidemiología</i>	Alicante September 2014
Cluster detection in spatial statistics <i>presented @ Clustering: Workshop on Clusters and Industrial Districts</i>	Valencia May 2015
Modelling varicella incidence in Valencia, Spain. (poster) <i>presented @ Spatial Statistics: Emerging Patterns</i>	Avignon June 2015
Measuring spatial inhomogeneity at different spatial scales using Hybrids of Gibbs point process models (oral presentation) <i>presented @ Joint Statistical Seminar at the Department of Mathematics and Mathematical Statistics, Umeå University</i>	Umea September 2015
Space and time clustering of mortality in European countries 1990-2009 <i>presented @ Clustering: Workshop on Clusters and Industrial Districts</i>	Valencia May 2016
The geographic profile of minor drug offences in Gandía, Spain, in the period 2012-2014 (poster) <i>presented @ 8th International workshop on spatio-temporal modelling: METMA VIII</i>	Valencia June 2016
Detecting clusters in the evolution of life expectancy at birth in French departments from 1833 to 1978 (poster) <i>presented @ 8th International workshop on spatio-temporal modelling: METMA VIII</i>	Valencia June 2016
The second-order statistical analysis of marked inhomogeneous spatio-temporal point processes (oral presentation) <i>presented @ 8th International workshop on spatio-temporal modelling: METMA VIII</i>	Valencia June 2016
A multi-scale area-interaction model for spatio-temporal point patterns (poster) <i>presented @ Spatial Statistics 2017: One World: One Health</i>	Lancaster June 2017
A multi-scale area-interaction model for spatio-temporal point patterns (oral presentation) <i>presented @ IV Congreso de Jóvenes Investigadores, Real Sociedad Matemática Española</i>	Valencia September 2017

Research visits

Visit Ottmar Cronie

Department of Mathematics and Statistical Mathematics <i>University of Umea</i>	Umea, Sweden <i>September - December 2015</i>
Visit M.N.M. van Lieshout Center of Mathematics and Computer Science, CWI <i>Stochastics group</i>	Amsterdam, Holland <i>July 2016</i>
Visit M.N.M. van Lieshout Department of Applied Mathematics <i>University of Twente</i>	Enschede, Holland <i>August 2016</i>

Short visits

Visit M.N.M. van Lieshout Space-time multi-scale models for public health data <i>CWI, Department of Applied Mathematics, University of Twente</i>	Amsterdam/Enschede <i>May 2016</i>
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Professional activities and Service

Conference in Disclosure and Application of Statistics <i>Organizing and Scientific Committee</i>	University of Valencia <i>September 2013</i>
Satellite conference of the International Biometric Conference <i>Organizing Committee</i>	Valencia <i>July 2014</i>
8th International workshop on spatio-temporal modelling: METMA VIII <i>Organizing Committee</i>	Valencia <i>June 2016</i>
Umea-Valencia meeting (research and teaching) <i>Organizing Committee</i>	Valencia <i>February 2017</i>

Professional Memberships

Member of the Spanish Society of Biometrics	2013-Present
Member of the International Society of Biometrics	2013-Present
Member of the spatio-temporal statistics group <i>Department of Mathematics and Mathematical Statistics</i>	University of Umea <i>2015</i>

Grants and prizes

Collaboration grant <i>Department of Statistics and Operational Investigation</i>	University of Valencia <i>2011 – 2012</i>
FPU (Training for University Professors) <i>Grant FPU12/04531</i>	Ministry of Education, Culture and Sports <i>May 2013 – June 2017</i>
Grant for short stays <i>Borses Ferran Sunyer i Balaguer / Mathematical Research</i>	Institut d'estudis catalans <i>September - December 2015</i>
Complementary grant for short stays FPU <i>Grant EST15/00174</i>	Ministry of Education, Culture and Sports <i>July - August 2016</i>

Incentive for the elaboration of thesis in English

Amount: 1,000 euros

Language Policy Service

July 2017

Projects

Spanish adaptation of the questionnaire BSI-18

University Institute of Research in Criminology and Criminal Science

Pearson Education

2013

Nuevas familias de procesos puntuales espacio-temporales con intensidades procedentes de campos aleatorios

University Jaime I, Castellón, University of Valencia

Ministry of Economy

2014 - 2016

Informatics, programming and modeling

Statistics: R (powerful environment for statistical programming, computing and graphics), R package development and documentation, Excel statistical functions, SPSS

GIS: ArcGis, R mapping functions

Office: MS Office: MS Word, Power-Point, Excel, Access, \LaTeX (Edition environment), Sweave (R and \LaTeX integration for writing reports)

Database: SQL

Programming: C++ (beginner, general-purpose programming language)

Graphic design: Adobe Photoshop, Adobe Illustrator

Systems: Windows and MacOS (use and maintenance)

Other skills

Team work and social skills.....

- Experience in motivating and coordinating people, commitment to team work, manager trainer of *Local Youth Groups Association (AGLT)*
- President and representative of the students, Faculty of Mathematics, Cluj Napoca, Rumania
- Representing Rumania in the international project for disabled children and youth, Kazou, Belgium

Organisational abilities.....

- Experience in organisation and managing the volunteering activities of Youth Local Group of hometown Falticeni

Artistic skills.....

- Experience in singing
- Experience in photography