

Mariano Gastón Beiró Villani

Curriculum Vitae

PERSONAL INFORMATION

<i>Family name</i>	Beiró Villani
<i>Given name</i>	Mariano Gastón
<i>Date of birth</i>	22nd March 1984
<i>Passport</i>	AAC028143 (Argentina), XDC012536 (Spain)
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CURRENT POSITIONS

National Scientific and Technical Research Council, Argentina **06/2017-curr.**
Research Associate.

School of Engineering, Universidad de Buenos Aires, Argentina **07/2017-curr.**
Associate Professor.
Currently in charge of the course on *Database Systems* for the degree in Informatics Engineering.

ACADEMIC DEGREES

Doctor in Engineering **2009-2013**
Universidad de Buenos Aires
Doctoral dissertation: “Combinatorial models of Complex Systems: Methods and Algorithms”.
Grade: 10/10, *summa cum laude*. Advisor: Dr. José Ignacio Alvarez-Hamelin.

Engineer in Informatics **2002-2008**
Universidad de Buenos Aires, School of Engineering
Grade: 9.30/10, (*with honors*).
Undergraduate dissertation: “Visualization of Complex Systems”. Grade: 10/10. Advisor: Dr. José Ignacio Alvarez-Hamelin.

PUBLICATIONS

PUBLICATIONS IN JOURNALS WITH PEER REVIEW

Understanding who talks about what: comparison between the information treatment in traditional media and online discussions

H. Schawe, M. G. Beiró, J.I. Alvarez-Hamelin, D. Kotzinos, L. Hernández

Scientific Reports 13, 3809

<https://doi.org/10.1038/s41598-023-30367-8>.

2023

Fairness in Vulnerable Attribute Prediction on Social Media

M. G. Beiró, K.Kalimeri

Data Mining and Knowledge Discovery 36(6), 2194-2213

<https://doi.org/10.1007/s10618-022-00855-y>.

2022

Evolution of the political opinion landscape during electoral periods

T. Mussi Reyero, M. G. Beiró, J.I. Alvarez-Hamelin, L. Hernández, D. Kotzinos

EPJ Data Science 10:31

<https://doi.org/10.1140/epjds/s13688-021-00285-8>.

2021

Traditional versus Facebook-based Surveys: Evaluation of biases in self-reported demographic and psychometric information

K. Kalimeri, M. G. Beiró, A. Bonanomi, A. Rosina, C. Cattuto

Demographic Research 42(5), 133-148

<https://dx.doi.org/10.4054/DemRes.2020.42.5>.

2020

Close proximity interactions support transmission of ESBL-K. pneumoniae but not ESBL-E. coli in healthcare settings

A. Duval, T. Obadia, P-Y Böelle, (...), I-Bird Study Group

PLOS Computational Biology 15(5)

<http://doi.org/10.1371/journal.pcbi.1006496>.

2019

Predicting demographics, moral foundations, and human values from digital behaviours

K. Kalimeri, M. G. Beiró, M. Delfino, R. Raleigh C. Cattuto

Computers in Human Behavior, Volume 92, 428-445.

<https://doi.org/10.1016/j.chb.2018.11.024>.

2019

Analysis of the Bitcoin blockchain: socio-economic factors behind the adoption

F. Parino, M. G. Beiró, L. Gauvin

EPJ Data Science, 7:38.

<https://doi.org/10.1140/epjds/s13688-018-0170-8>.

2018

Shopping mall attraction and social mixing at a city scale

M. G. Beiró, L. Bravo, D. Caro, C. Cattuto, L. Ferres, E. Graells-Garrido

EPJ Data Science, 7:28.

<http://dx.doi.org/10.1140/epjds/s13688-018-0157-5>.

2018

Measuring dynamic social contacts in a rehabilitation hospital: effect of wards, patient and staff characteristics

A. Duval, T. Obadia, L. Martinet, (...), **I-Bird Study Group**

Scientific reports, Volume 8, Article Number 1686

<http://doi.org/10.1038/s41598-018-20008-w>

2018

Predicting human mobility through the assimilation of social media traces into mobility models

M. G. Beiró, A. Panisson, M. Tizzoni, C. Cattuto

EPJ Data Science, 5:30.

<http://dx.doi.org/10.1140/epjds/s13688-016-0092-2>

2016

Router-level community structure of the Internet Autonomous Systems

M. G. Beiró, S. P. Grynberg, J. I. Alvarez-Hamelin

EPJ Data Science, 4:12.

<http://dx.doi.org/10.1140/epjds/s13688-015-0048-y>

2015

Detailed contact data and the dissemination of Staphylococcus aureus in hospitals

T. Obadia, R. Silhol, L. Opatowski, (...), **I-Bird Study Group**

PLoS computational biology, Volume 11, Number 3.

<https://doi.org/10.1371/journal.pcbi.1004170>

2015

Deciphering the global organization of clustering in real complex networks

P. Colomer de Simón, M. A. Serrano, **M. G. Beiró**, J. I. Alvarez-Hamelin, M. Boguñá

Scientific Reports, Volume 3, Article Number 2517.

<http://dx.doi.org/10.1038/srep02517>

2013

Obtaining communities with a fitness growth process

M. G. Beiró, J. R. Busch, S. P. Grynberg, J. I. Alvarez-Hamelin

Physica A, Volume 392, Issue 9, 2278-2293

<http://dx.doi.org/10.1016/j.physa.2013.01.031>

2013

Understanding edge-connectivity in the Internet through core-decomposition

J. I. Alvarez-Hamelin, **M. G. Beiró**, J. R. Busch

Internet Mathematics, Volume 7, Issue 1, 45-66.

<http://dx.doi.org/10.1080/15427951.2011.560786>

2011

A low complexity visualisation tool that helps to perform complex systems analysis

M. G. Beiró, J. I. Alvarez-Hamelin, J. R. Busch

New Journal of Physics, Volume 10, Number 12, 125003

<http://dx.doi.org/10.1088/1367-2630/10/12/125003>

2008

PRESENTATIONS IN CONFERENCES WITH PEER REVIEW

Who talks about what? Comparing the information treatment in traditional media with online discussions

H. Schawe, L. Hernández, **M. G. Beiró**, J.I. Alvarez-Hamelin, D. Kotzinos

Conference on Complex Systems (CCS'22), Palma de Mallorca, España.

2022

Geolocalización de usuarios en Twitter utilizando redes convolucionales de grafos

Federico M. Funes, J.I. Alvarez-Hamelin, M.G. Beiró

51^o Jornadas Argentinas de Informática (51 JAIIO), Buenos Aires, Argentina.

2022

Tracking the political opinion landscape in Twitter during electoral periods

T. Mussi Reyero, M. G. Beiró, J.I. Alvarez-Hamelin, L. Hernández, D. Kotzinos

Conference on Complex Systems (CCS'21), Lyon, Francia.

2021

Human Values and Attitudes towards Vaccination in Social Media

K. Kalimeri, M. G. Beiró, A. Urbinati, A. Bonanomi, A. Rosina, C. Cattuto

Data Science for Social Good Workshop (WDSGG2019), Companion Proceedings of the 2019 World Wide Web Conference (WWW'19 Companion), San Francisco, USA.

2019

Topic-based study of a Twitter political network

T. Mussi Reyero, J. I. Alvarez-Hamelin, M. G. Beiró

International School and Conference on Network Science (NetSciX'19), Santiago, Chile.

2019

Analysis of the Bitcoin blockchain: Socio-economic factors behind the adoption

F. Parino, M. G. Beiró and L. Gauvin

Conference on Complex Systems (CCS'18), Tesalónica, Grecia.

2018

Removing Time Dependencies in Semantic Analysis in the New York Times Corpus

C. Selmo, M. G. Beiró, J. F. Martínez, J. I. Alvarez-Hamelin

Understanding Opinion and Language Dynamics Using Massive Data (OpLaDyn Satellite), Conference on Complex Systems (CCS'18), Tesalónica, Grecia.

2018

Automatic Prediction of Youth Unemployment via Social Media Data

K. Kalimeri, M. G. Beiró, A. Bonanomi, A. Rosina and C. Cattuto

Complex Systems for the Most Vulnerable (CS4V18 Satellite), Conference on Complex Systems (CCS'18), Tesalónica, Grecia.

2018

Characterization of the adopters of the Bitcoin

F. Parino, M. G. Beiró, L. Gauvin

BIFI International Conference 2018 (BIFI18), Zaragoza, España.

2018

The Role of Shopping Malls in Social Inequality

M. G. Beiró, C. Cattuto, L. Bravo, D. Caro, L. Ferres and E. Graells-Garrido

1st European Symposium on Societal Challenges in Computational Social Sciences Londres, Reino Unido.

2017

Predicting Demographics, Moral Foundations, and Human Values from Digital Behaviors

K. Kalimeri, M. G. Beiró, R. Raleigh and C. Cattuto

1st European Symposium on Societal Challenges in Computational Social Sciences Londres, Reino Unido.

2017

What do our digital records reveal about us? Automatic Prediction of Demographic and Psychometric Attributes from Digital Data

K. Kalimeri, M. G. Beiró, R. Raleigh, C. Cattuto

International Conference on Computational Social Science (IC2S2 2017)

Colonia, Alemania.

2017

Traditional versus Facebook-based Surveys: Evaluation of Biases in Self-reported Psychometric Information

K. Kalimeri, M. G. Beiró, A. Bonanomi, A. Rosina, C. Cattuto

Social Media and Demographic Research Workshop (SMDR17)

Montreal, Canadá.

2017

Improving human mobility prediction with geo-tagged pictures

M. G. Beiró, A. Panisson, M. Tizzoni, C. Cattuto

NetMob 2017, Milán, Italia.

2017

Inference of human mobility networks through the assimilation of social media traces into mobility models

M. G. Beiró, A. Panisson, C. Cattuto

Conference on Complex Systems (CCS'15), Tempe, Arizona (US).

2015

Deciphering the global organization of clustering in real complex networks

P. Colomer de Simón, M. A. Serrano, M. G. Beiró, J. I. Alvarez-Hamelin, M. Boguñá

European Conference on Complex Systems (ECCS'13), Barcelona, España.

2013

Visualizing communities in dynamic networks

M. G. Beiró, J. R. Busch, J. I. Alvarez-Hamelin

LAWDN – Latin-American Workshop on Dynamic Networks, Buenos Aires, Argentina, inria-00531761.

2010

SnailVis: a paradigm to visualize complex networks

M. G. Beiró, J. R. Busch, J. I. Alvarez-Hamelin

39^o Jornadas Argentinas de Informática e Investigación Operativa, Argentine Symposium on Technology (JAIIO-AST '10), Mar del Plata, Argentina, p. 1682-1693.

2010

TEACHING EXPERIENCE AND COURSE DEVELOPMENT

Database Systems (96 teaching hours)

03/2017-curr.

Professor

Mandatory course for the degree in Informatics Engineering at School of Engineering, Universidad de Buenos Aires (UBA). I updated the curricula for the course, introducing contents on NoSQL databases and data analytics.

Computer Organization II (128 teaching hours)

03/2017-07/2017

Assistant professor

Mandatory course for the Bachelor in Computer Sciences at School of Exact and Natural Sciences, Universidad de Buenos Aires (UBA).

Distributed Operating Systems (32 teaching hours)

09/2011-09/2012

Professor

Mandatory course for the Master in Telecommunications at School of Engineering, Universidad de Buenos Aires (UBA)

Introduction to Distributed Systems (96 teaching hours)

03/2008-10/2014

Teaching assistant

Mandatory course for the degree in Informatics Engineering at School of Engineering, Universidad de Buenos Aires (UBA).

PREVIOUS POSITIONS

CY Cergy Paris Université, Cergy-Pontoise, France

2020, 2022

Invited Professor

Invited by the IAS (Institute for Advanced Studies) of Cergy Paris Université to collaborate with Dr. Laura Hernández on the study of models for opinion dynamics.

ISI Foundation, Turin, Italy

2014-2017

Postdoctoral researcher

Researcher in the *Computational Social Science* group. Research lines: Machine Learning for human mobility models, semantic exploration of large cities, prediction of demographic and psychometric attributes.

Institut rhônalpin des Systèmes Complexes, Lyon, France

2011

Research internship

Research internship of 4 months at IXXI (*Institut rhônalpin des Systèmes Complexes*), ENS-Lyon (France) working on the MOSAR project on the analysis of data from face-to-face contacts in hospitals.

SACTBA project, Buenos Aires, Argentina

2007-2008

C++ Developer

Stage at the *Buenos Aires Adaptive System for Traffic Control (SACTBA)* from Buenos Aires City Government, as a C++ developer for the communication protocols between traffic light controllers and servers, and the visual interface for monitoring stations.

CONFERENCE ORGANIZATION AND EVALUATION

NetSci-X 2023

2023

General chair of NetSci-X 2023 in Buenos Aires, Argentina (<https://cnet.fi.uba.ar/netscix23>).

Jornadas Argentinas de Informática (JAIIO).

2020-2021

General chair in the 49 JAIIO and 50 JAIIO, with ~250 accepted contributions per year.

International Conference on Web and Social Media (ICWSM)

2021-2022

Member of program committee for the 2nd and 3rd *Workshop on Data for the Wellbeing of Most Vulnerable*.

Networks Conference 2021**2021**

Member of program committee for the *Opinion and Language Dynamics* Satellite, organized by the Opladyn project.

THESIS AND FINAL PROJECTS DIRECTION AND EVALUATION

Thesis advisor.**2017-2022**

Advisor of the MSc thesis in Informatics Engineering of 3 students.

Final projects advisor.**2017-2022**

Advisor of the final project in Informatics Engineering of 13 students.

Member of thesis examining committees.**2017-2022**

Member of the examining committee for 3 MSc thesis in Informatics Engineering and 1 MSc thesis in Computer Sciences at Universidad de Buenos Aires, and 2 MSc thesis in Data Mining at Universidad Austral.

Member of prize juries.**2021**

Member of the jury in the 2021 Annual Prize for Best Engineering thesis of the Argentine Center of Engineers (CAI).

OTHER KNOWLEDGE

LANGUAGES

<i>Spanish</i>	Mother tongue.
<i>English</i>	Full professional competence.
<i>Italian</i>	Full professional competence.
<i>French</i>	Intermediate competence.