Sofia JIJON ALBAN

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🌐 https://sjijon.github.io

Scientific interests

- Infectious diseases modeling
- Epidemic (re)emergence
- Behavioral epidemiology
- Numerical methods
- Infectious diseases control
- Open science

Degrees

2021. PhD in Epidemiology
Speciality: Biomathematics
Sorbonne Université
Paris - France

2015. Masters in Applied Mathematics
Speciality: Mathematical modeling
Sorbonne Université
Paris - France

2013. Bachelor in Mathematics
Escuela Politécnica Nacional
Quito - Ecuador

Academic experience

Jan. 2022 – Jan. 2023. Postdoctoral researcher at CNRS

Research unit: Institute of ecology and environmental sciences of Paris (IEES Paris)
Research project: Studying the dynamics of early epidemics.

Sep. 2020 – Dec. 2021. Postdoctoral researcher at Cnam

Research unit: Modeling, epidemiology and monitoring of health risks (MESuRS)
Research project: Estimation of the risk of SARS-CoV-2 infection among healthcare workers in Egyptian quarantine hospitals

Sep. 2019 – Aug. 2020. Teaching and research adjunct (ATER) at Sorbonne Université (SU)

Biology Faculty

Sep. 2015 – Jul. 2021. PhD at Sorbonne Université

Research unit: Pierre Louis Institute of Epidemiology and Public Health (IPLESP)
Research project: Prevention of infectious diseases in the context of efficient treatment: a game-theoretic approach.
Manuscript available at https://theses.fr/s267442

Interdisciplinary mention: PhD program of the Public health doctoral network (RDSP) of the EHESP.

Maternity leave

Dec 2019–May 2020 & Jan 2023–Jul 2024

Articles (selected)

Published

- Jijón S, Czuppon P, Blanquart F and Débarre F (2024). Using early detection data to estimate the date of emergence of an epidemic outbreak. *PLOS Computational Biology*, 20(3):e1011934. doi: 10.1371/journal.pcbi.1011934

- Smith DRM, Jijón S*, Oodally A*, Shirreff G* et al. (2022). Sick leave due to COVID-19 during the first pandemic wave in France, 2020. Occupational and Environmental Medicine, 80:268–272. doi: 10.1136/oemed-2022-108451

- Jijón S, Al Shafie A, Hassan E, EMAE-MESuRS working group on nosocomial SARS-CoV-2 modeling, Temime L, Jean K and El Kassas M (2022). Estimating the risk of incident SARS-CoV-2 infection among healthcare workers in quarantine hospitals: the Egyptian example. *Scientific Reports*, 12:19773. doi: 10.1038/s41598-022-23428-x

- Jijón S, Molina J-M, Costagliola D, Supervie V and Breban R (2021) Can HIV epidemics among MSM be eliminated through participation in PrEP rollouts? *AIDS*, *AIDS*, 35(4):2347–2354. doi: 10.1097/QAD.0000000000003012

- Jijón S, Supervie V and Breban R (2017). Prevention of treatable infectious diseases: a game-theoretic approach. *Vaccine*, 37(40):5339–5345. doi: 10.1016/j.vaccine.2017.08.040

Other scientific contribution

Talks (selected)

- Jijón S, Al Shafie A, Temime L, Jean K, El Kassas M. Estimating the risk of incident SARS-CoV-2 infection among healthcare workers residing in Egyptian quarantine hospitals. First meeting of the Infectious Disease Modeling coordinated action group of ANRS-MIE, Paris, Oct. 18-19, 2021.

- Jijón S, Molina JM, Costagliola D, Supervie V and Breban R. Can HIV epidemics be eliminated through voluntary participation to PrEP rollouts?. EACS 2019 (Basel, Switzerland), Nov. 6–9, 2019. Abstract available at EACS 2019 – Abstract book. *HIV Medicine*, 20(S9):35. doi: 10.1111/hiv.12814 .

Posters sessions (selected)

- Jijón S, Czuppon P, Blanquart F and Débarre F. Estimating the date of emergence of an epidemic from detection data: An application to the SARS-CoV-2 pandemic. European Conference on Mathematical and Theoretical Biology (Heidelberg, Germany), Sept. 19–23, 2022.

- Jijón S, Al Shafie A, Temime L, Jean K, El Kassas M. Risk of incident SARS-CoV-2 infection among healthcare workers residing in Egyptian quarantine hospitals. ICPIC - 6th International Conference on Prevention & Infection Control (Geneva, Switzerland), Sept. 14–17 , 2021. *Poster selected for the guided poster tour "COVID-19 among healthcare workers"; chair: Benedetta Allegranzi (WHO).*

Seminars

- (As organizer) [Causality in public health]. Interdisciplinary seminar organized within the framework of the RDSP, with the support of the Economy Center of University Paris 13 (CEPN), December 13, 2017. Website: https://causalitesantepublique.wordpress.com .

- (As speaker) [Prevention of infectious diseases in the context of efficient treatment: a game-theoretic approach and an application to HIV epidemic]. Seminar organized by the MODEMAT Mathematical Modeling Centre (Quito, Ecuador), Feb. 23, 2017.

Consultancy

2022. 30-day technical consultancy for the WHO, titled "Mathematical modelling of the SARS-CoV-2 epidemic accounting for endogenous individual behaviors: A rapid narrative review and perspectives for low- and middle-income countries".

Peer-Reviews

Reviewer for PCI Infections, PLOS Global Public Health, Royal Society Open Science, BMC Infectious Diseases.
Clarivate: https://www.webofscience.com/wos/author/record/2216992

Grants

2022. 1-year research allocation from ANRS (30,500€ gross), declined to accept the job offert at CNRS.

2018. 1-year research allocation from ANRS (30,500€ gross).

2015. Two 3-year doctoral allocations (∼60,000€ gross), from SU and EHESP; the former declined to accept the latter.

Tools

Numerics and modeling

Scientific text edition

LaTeX TikZ

Version control

Web

Languages

- Spanish (native)
- French (fluent)
- English (fluent)

Complementary activities

Typesetting in LaTeX

- Creation of templates, available at https://github.com/sjijon/TeX-templates

- (Book) Cevallos JJ, Moreno Avilés H. [Solved problems of signal processing in FPGAs], ESPOCH University (Riobamba, Ecuador).

Cultural diffusion

Contribution in the management of the social networks and website development of the cultural centre Casa Mitómana (Quito, Ecuador).

Ballet

Professional training until 2006, and dear pastime since.