## Joaquim Valls

## List of Publications by Year in descending order

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1 Modelling the dynamics of tuberculosis lesions in a virtual lung: Role of the bronchial tree in endogenous reinfection. PLoS Computational Biology, 2020, 16, e1007772.

Local Inflammation, Dissemination and Coalescence of Lesions Are Key for the Progression toward Active Tuberculosis: The Bubble Model. Frontiers in Microbiology, 2016, 7, 33.
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3 Modeling tuberculosis in Barcelona. A solution to speed-up agent-based simulations. , 2015, , .
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Individual-Based Modeling of Tuberculosis in a User-Friendly Interface: Understanding the Epidemiological Role of Population Heterogeneity in a City. Frontiers in Microbiology, 2015, 6, 1564.
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To Achieve an Earlier IFN-î3 Response Is Not Sufficient to Control Mycobacterium tuberculosis Infection
in Mice. PLoS ONE, 2014, 9, el00830.
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Evolution and role of corded cell aggregation in Mycobacterium tuberculosis cultures.
Tuberculosis, 2013, 93, 690-698.

Individual-based modelling of carbon and nitrogen dynamics in soils: Parameterization and sensitivity
analysis of microbial components. Ecological Modelling, 2011, 222, 1998-2010.
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Effect of the haematocrit layer geometry on Plasmodium falciparum static thin-layer in vitro cultures. Malaria Journal, 2008, 7, 203.

Individual-based model and simulation of Plasmodium falciparum infected erythrocyte in vitro cultures. Journal of Theoretical Biology, 2007, 248, 448-459.

Individual-based modelling of bacterial cultures to study the microscopic causes of the lag phase.
Journal of Theoretical Biology, 2006, 241, 939-953.

> 11 Simulation modelling of bacterial growth in yoghurt. International Journal of Food Microbiology,
> $2002,73,415-425$.

INDISIM, An Individual-based Discrete Simulation Model to Study Bacterial Cultures. Journal of
12 Theoretical Biology, 2002, 214, 305-319.
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Individual based simulations of bacterial growth on agar plates. Physica A: Statistical Mechanics and
Its Applications, 2002, 305, 604-618.

Nonequilibrium dynamics in lattice ecosystems: Chaotic stability and dissipative structures. Chaos,
1992, 2, 387-395.

Stability and complexity of spatially extended two-species competition. Journal of Theoretical Biology,
1992, 159, 469-480.

On structural stability and chaos in biological systems. Journal of Theoretical Biology, 1992, 155,
87-102.

Self-organized criticality in Monte Carlo simulated ecosystems. Physics Letters, Section A: General,
Atomic and Solid State Physics, 1992, 172, 56-61.
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Characterization of spatiotemporal chaos from macroscopic measures. Physics Letters, Section A:

