Publications and Working Papers

Giorgio Fabbri

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Books

*B*1) G. Fabbri, F. Gozzi and A. Święch Stochastic Optimal Control in Infinite Dimensions: Dynamic Programming and HJB Equations. *Probability Theory and Stochastic Modelling*, vol. 82, XXIV+916 pages, Springer, Berlin. (The whole book is written by Fabbri, Gozzi and Święch, with the exception of Chapter 6 that is a contribution of M. Fuhrman and G. Tessitore)

Papers with revise-and-resubmit decisions

*R*1) Boucekkine R., Fabbri G., Federico S., Gozzi F., Loch-Temzelides T., Ricci C. Differential Climate Games with Heterogenous Players. Revise and resubmit, **Economic Theory**.

*R*2) Fabbri G., Fiaschi D., Ricci C. The Invisible Hand as an Emergent Property. Revise and resubmit, **Theoretical Economics**; revision in preparation.

*R*3) Fabbri G. Visa Quotas, Undocumented Migration, and Skill Selection. Revise and resubmit, **Journal of Population Economics**.

Papers in peer-reviewed journals

*A*1) De Feo F., Fabbri G., Faggian S., Freni G. (forthcoming) Centralized and Competitive Extraction of Distributed Renewable Resources on Networks with Nonlinear Aggregate Growth. **Journal of Economic Dynamics and Control**, to appear.

*A*2) Fabbri G., Faggian S., Federico S., Gozzi F. (forthcoming) Optimal Control in Infinite Dimensional Spaces and Economic Modeling: State of the Art and Perspectives **Mathematical Models and Methods in Applied Sciences**, to appear.

*A*3) Fabbri G., Faggian S., Freni G. (2025) Growth models with externalities on networks **Decisions in Economics and Finance**, 48:415-436.

*A*4) Fabbri G., Leroux M.-L., Melindi-Ghidi P., Sas W. (2024) Conditioning public pensions on health: effects on capital accumulation and welfare **Journal of Population Economics**, 37, article 47: 1-21.

*A*5) Fabbri G., Faggian S., Freni G. (2024) On competition for spatially distributed resources in networks **Theoretical Economics**, 19:743-781.

*A*6) Fabbri G., Federico S., Fiaschi D., Gozzi F. (2024) Mobility decisions, economic dynamics and epidemic **Economic Theory**, 77:495-531.

*A*7) Dobson A., Ricci C., Boucekkine R., Gozzi F., Fabbri G., Loch-Temzelides T., Pascual M. (2023) Balancing economic and epidemiological interventions in the early stages of pathogen emergence **Science Advances**, 9(21):eade6169.

*A*8) Boucekkine R., Fabbri G., Federico S., Gozzi F. (2022) A dynamic theory of spatial externalities **Games and Economic Behavior**, 132:133-165.

*A*9) Boucekkine R., Fabbri G., Federico S., Gozzi F. (2022) Managing spatial linkages and geographic heterogeneity in dynamic models with transboundary pollution **Journal of Mathematical Economics**, 98:102577.

*A*10) Augeraud-Veron E., Fabbri G., Schubert K. (2021) Volatility-reducing biodiversity conservation under strategic interactions **Ecological Economics**, 190:107193.

*A*11) Augeraud-Veron E., Fabbri G., Schubert K. (2021) Prevention and mitigation of epidemics: biodiversity conservation and confinement policies **Journal of Mathematical Economics**, 93:102484.

*A*12) Boucekkine R., Fabbri G., Federico S., Gozzi F. (2021) Control theory in infinite dimension for the optimal location of economic activity: the role of social welfare function **Pure and Applied Functional Analysis**, 6(5):871-888.

*A*13) Fabbri G., Gozzi F., Zanco A. (2021) Verification results for age-structured models of economic-epidemics dynamics **Journal of Mathematical Economics**, 93:102455.

*A*14) Melindi-Ghidi P., Dedeurwaerdere T., Fabbri G. (2020) Using environmental knowledge brokers to promote deep green agri-environment measures **Ecological Economics**, 176:106722.

*A*15) Boucekkine R., Fabbri G., Federico S., Gozzi F. (2020) From firm to global-level pollution control: the case of transboundary pollution **European Journal of Operational Research**, 290(1):331-345.

*A*16) Fabbri G., Faggian S., Freni G. (2020) Policy effectiveness in spatial resource wars: a two-region model **Journal of Economic Dynamics and Control**, 111:103818.

*A*17) Boucekkine R., Fabbri G., Federico S., Gozzi F. (2019) Growth and agglomeration in the heterogeneous space: a generalized AK approach **Journal of Economic Geography**, 19(6):1287-1318.

*A*18) Augeraud-Veron E., Fabbri G., Schubert K. (2019) The value of biodiversity as an insurance device **American Journal of Agricultural Economics**, 101(4):1068-1081.

*A*19) Boucekkine R., Fabbri G., Federico S., Gozzi F. (2019) Geographic environmental Kuznets curves: the optimal growth linear-quadratic case **Mathematical Modelling of Natural Phenomena**, 14(1):105.

*A*20) Boucekkine R., Fabbri G., Pintus P. (2018) Short-run pain, long-run gain: the conditional welfare gains from international financial integration **Economic Theory**, 65(2):329-360.

*A*21) Fabbri G., Russo F. (2017) HJB equations in infinite dimension and optimal control of stochastic evolution equations via generalized Fukushima decomposition **SIAM Journal on Control and Optimization**, 55(6):4072-4091.

*A*22) Fabbri G., Faggian S., Freni G. (2017) Non-existence of optimal programs for undiscounted growth models in continuous time **Economics Letters**, 152:57-61.

*A*23) Fabbri G. (2017) International borrowing without commitment and informational lags: choice under uncertainty **Journal of Mathematical Economics**, 68:103-114.

*A*24) Fabbri G., Russo F. (2017) Infinite dimensional weak Dirichlet processes and convolution type processes **Stochastic Processes and their Applications**, 127(1):325-357.

*A*25) Fabbri G. (2016) Ecological barriers and convergence: a note on geometry in spatial growth models **Journal of Economic Theory**, 162:114-136.

*A*26) Fabbri G., Faggian S., Freni G. (2015) On the Mitra-Wan model of forestry management in continuous time **Journal of Economic Theory**, 157:1001-1040.

*A*27) Boucekkine R., Fabbri G., Gozzi F. (2014) Egalitarianism under population change: age structure does matter **Journal of Mathematical Economics**, 55(1):86-100.

*A*28) Fabbri G., Federico S. (2014) On the infinite-dimensional representation of stochastic controlled systems with delayed control in the diffusion term **Mathematical Economics Letters**, 2(3-4):33-43.

*A*29) Di Girolami C., Fabbri G., Russo F. (2014) The covariation for Banach space valued processes and applications **Metrika**, 77(1):51-104.

*A*30) Boucekkine R., Fabbri G., Pintus P. (2014) Growth and financial liberalization under capital collateral constraints **Economics Letters**, 122(2):303-307.

*A*31) Boucekkine R., Camacho C., Fabbri G. (2013) On the optimal control of some parabolic differential equations arising in economics **Serdica Mathematical Journal**, 39(3-4):331-354.

*A*32) Boucekkine R., Camacho C., Fabbri G. (2013) Spatial dynamics and convergence: the spatial AK model **Journal of Economic Theory**, 148(6):2719-2736.

*A*33) Di Maio M., Fabbri G. (2013) Product boycott, household heterogeneity and child labor **Journal of Population Economics**, 26(4):1609-1630.

*A*34) Boucekkine R., Fabbri G. (2013) Assessing Parfit's "Repugnant Conclusion" within a canonical endogenous growth set-up **Journal of Population Economics**, 26(2):761-767.

*A*35) Boucekkine R., Fabbri G., Pintus P. (2012) On the optimal control of a linear neutral differential equation arising in economics **Optimal Control Applications and Methods**, 33(5):511-530.

*A*36) Bambi M., Fabbri G., Gozzi F. (2012) Optimal policy and consumption smoothing effects in the time-to-build AK model **Economic Theory**, 50(3):635-669.

*A*37) Boucekkine R., Fabbri G., Gozzi F. (2011) Revisiting the optimal population size problem under endogenous growth **Asia-Pacific Journal of Accounting & Economics**, 18(3):287-306.

*A*38) Boucekkine R., Fabbri G., Gozzi F. (2010) Maintenance and investment: complements or substitutes? A reappraisal **Journal of Economic Dynamics and Control**, 34(12):2420-2439.

*A*39) Fabbri G., Gozzi F., Swiech A. (2010) Verification theorem and construction of ε-optimal controls for abstract evolution equations **Journal of Convex Analysis**, 17(2):611-642.

*A*40) Fabbri G., Goldys B. (2009) An LQ problem for the heat equation on the halfline with Dirichlet boundary control and noise **SIAM Journal on Control and Optimization**, 48(3):1473-1488.

*A*41) Fabbri G., Gozzi F. (2008) Solving optimal growth models with vintage capital: the dynamic programming approach **Journal of Economic Theory**, 143(1):331-373.

*A*42) Fabbri G. (2008) A viscosity solution approach to the infinite-dimensional HJB equation related to a boundary control problem in a transport equation **SIAM Journal on Control and Optimization**, 47:1022-1052.

*A*43) Fabbri G. (2008) Viscosity solutions to delay differential equations in demo-economy **Mathematical Population Studies**, 15(1):27-54.

*A*44) Fabbri G., Gozzi F., Faggian S. (2008) On the dynamic programming approach to economic models governed by DDEs **Mathematical Population Studies**, 15(4):267-290.

Papers in collections

*C*1) G. Fabbri. A dynamic programming approach in hilbert spaces for a family of applied delay optimal control problems. In R. Glowinski and J.P. Zolesio., editors, *Free and Moving Boundaries: Analysis, Simulation and Control*, volume 252 of *Lecture Notes in Pure and Applied Mathematics*, pages 375-394. 2007.

Working papers

*W*1) An infinite dimensional approach for an arbitrage-free implied volatilities model (with Alan Brace and Benjamin Goldys).

*W*2) Heterogenous entrepreneurs, government quality and the effectiveness of industrial policy (with Michele Di Maio and Vincenzo Lombardo).

*W*3) Risk sharing and growth in small open economies (with Raouf Boucekkine and Patrick Pintus).