



### University of Urbino Carlo Bo

Department of Economics, Society and Politics (DESP)

Palazzo Battiferri, Via Saffi 42, 61029 Urbino PU

 +39 0722 305509

 [francesco.vidoli@uniurb.it](mailto:francesco.vidoli@uniurb.it)

 <http://fvidoli.weebly.com/>

---

### Personal details

Born in Rome, October 29, 1974.

Resident in Rome, tel. office: +39 0722 305509.

Degree in Statistics and Economics at the University of Rome La Sapienza (110/110).

2009-2012 PhD in “Analisi economica, matematica e statistica dei fenomeni sociali”, prof. da Empoli. Dissertation title: “*A comprehensive model for the evaluation of the local governments’ expenditure needs and the essential level of local services*”, [[pdf](#)].

### Honors and Awards

2014 Winner of 2014 award for the best PhD thesis “Giorgio Leonardi” - XXVIII edition, AISRe - abstract (in Italian) published by EyesReg, [[webpage](#)]

From 2017 Granted in the National Scientific Habilitation (Abilitazione Scientifica Nazionale, [Link to ASN](#)) in the following areas:

Granted as	In	To	Until
Associated professor	Economic Statistics (13/D2)	2017	2023
Full professor	Economic Statistics (13/D2)	2020	2029
Associated professor	Applied Economics (13/A4)	2021	2030
Associated professor	Economic Policy (13/A2)	2021	2030
Associated professor	Public Economics (13/A3)	2021	2030

### Academic Experience

#### Università di Roma Tre, Facoltà di Scienze politiche

2004-2018 Integrative course teacher in Economic Statistics, Faculty of Political Science, University Roma Tre - prof. C. Mazziotta [seminars on Data Envelopment Analysis and methods of estimating efficiency in public services], [[lecture notes](#)].

2021- Researcher at the ”Osservatorio sull’Economia del Welfare” [Centre for the Welfare Economy], Luiss Business School, Roma, Italia - [[web site](#)]

Referee/Reviewer: *Energy Efficiency - European Journal of Operational Research - Journal of Productivity Analysis - International transactions in operational research - Omega - Regional Studies - Social indicator research - Local Government Studies - Regional Science Policy and Practice - Resources, Conservation & Recycling*

## Publications & working papers

### Scientific journal papers and books

2024

Calogero Guccio, Giacomo Pignataro, Domenica Romeo, and Francesco Vidoli. Is austerity good for efficiency, at least? a counterfactual assessment for the italian nhs. *Socio-Economic Planning Sciences*, page 101798, 2024. ISSN 0038-0121. URL <https://www.sciencedirect.com/science/article/pii/S0038012123003105>

2023

E. Fusco, M.P. Libório, H. Rabiei-Dastjerdi, F. Vidoli, C. Brunsdon, and P.I. Ekel. Harnessing spatial heterogeneity in composite indicators through the ordered geographically weighted averaging (ogwa) operator. *Geographical Analysis*, n/a(n/a). doi: <https://doi.org/10.1111/gean.12384>. URL <https://onlinelibrary.wiley.com/doi/abs/10.1111/gean.12384>

2023

F. Vidoli, F. Quintiliani, G. Ivaldi, G. Marinuzzi, F. Porcelli, and W. Tortorella. Do municipal unions improve cost efficiency for the social function? a quasi-experimental endogenous stochastic frontier approach. *Journal of Regional Science*, n/a(n/a). doi: <https://doi.org/10.1111/jors.12673>. URL <https://onlinelibrary.wiley.com/doi/abs/10.1111/jors.12673>

2023

G. Messina, A. Tomasi, G. Ivaldi, and F. Vidoli. ‘pay as you own’ or ‘pay as you throw’? a counterfactual evaluation of alternative financing schemes for waste services. *Journal of Cleaner Production*, page 137363, 2023. ISSN 0959-6526. doi: <https://doi.org/10.1016/j.jclepro.2023.137363>. URL <https://www.sciencedirect.com/science/article/pii/S0959652623015214>

2023

Giovanna D’Inverno, Francesco Vidoli, and Kristof De Witte. Sustainable budgeting and financial balance: Which lever will you pull? *European Journal of Operational Research*, 2023. ISSN 0377-2217. doi: <https://doi.org/10.1016/j.ejor.2023.01.036>

2022

Francesco Vidoli, Monica Auteri, Giorgia Marinuzzi, and Walter Tortorella. Spatial interdependence in cost efficiency and local government optimal size: The case of italian municipalities. *Socio-Economic Planning Sciences*, page 101481, 2022b. ISSN 0038-0121. doi: <https://doi.org/10.1016/j.seps.2022.101481>. URL <https://www.sciencedirect.com/science/article/pii/S0038012122002828>

2022

Elisa Fusco, Roberto Benedetti, and Francesco Vidoli. Stochastic frontier estimation through parametric modelling of quantile regression coefficients. *Empirical Economics*, 64:869–896, 2022. ISSN 1435-8921. URL <https://doi.org/10.1007/s00181-022-02273-x>

2022

Jacopo Canello and Francesco Vidoli. Formal cooperation and the performance of italian firms operating inside and outside industrial districts. *Regional Studies*, 56(12):2191–2206, 2022. ISSN 0034-3404. doi: <https://doi.org/10.1080/00343404.2022.2054977>. URL <https://www.tandfonline.com/doi/full/10.1080/00343404.2022.2054977>

2022

Francesco Vidoli and Monica Auteri. Health-care demand and supply at municipal level: A spatial disaggregation approach. *Socio-Economic Planning Sciences*, 84:101229, 2022. ISSN 0038-0121. doi: <https://doi.org/10.1016/j.seps.2022.101229>. URL <https://www.sciencedirect.com/science/article/pii/S0038012122000076>

2022

F. Vidoli, G. Pignataro, and R. Benedetti. Identification of spatial regimes of the production function of italian hospitals through spatially constrained cluster-wise regression. *Socio-Economic Planning Sciences*, 82, Part A:101223, 2022a. ISSN 0038-0121. doi: <https://doi.org/10.1016/j.seps.2022.101223>. URL <https://www.sciencedirect.com/science/article/pii/S0038012122000015>

2021

A.G. Billè, C. Salvioni, and F. Vidoli. Spatial econometric modelling of farm data. In P. Postiglione, R. Benedetti, and F. Piersimoni, editors, *Spatial Econometric Methods in Agricultural Economics Using R*, chapter 9. CRC Press, 2021. ISBN 9781498766814

2020

R. Benedetti, F. Piersimoni, G. Pignataro, and F. Vidoli. The identification of spatially constrained homogeneous clusters of covid-19 transmission in italy. *Regional Science Policy & Practice*, 12(6):1169–1187, 2020. ISSN 1757-7802. doi: 10.1111/rsp3.12371. URL <https://rsaiconnect.onlinelibrary.wiley.com/doi/10.1111/rsp3.12371>

- 2020 F. Pammolli, F. Porcelli, F. Vidoli, M. Auteri, and G. Bora'. *La sanità delle regioni*. Il Mulino, Bologna, 2020. ISBN 9788815287236. URL <https://www.mulino.it/isbn/9788815287236>
- 2020 J. Canello and F. Vidoli. Investigating space-time patterns of regional industrial resilience through a micro-level approach: an application to the italian wine industry. *Journal of Regional Science*, 60:653–676, 2020. ISSN 1467-9787. doi: 10.1111/jors.12480. URL <https://onlinelibrary.wiley.com/doi/abs/10.1111/jors.12480?af=R>
- 2020 E. Fusco, F. Vidoli, and N. Rogge. Spatial directional robust benefit of the doubt approach in presence of undesirable output: an application to italian waste sector. *Omega*, 94:102053, 2020. ISSN 0305-0483. URL <https://www.sciencedirect.com/science/article/pii/S0305048318308867>
- 2020 F. Porcelli and F. Vidoli. A comprehensive model for the evaluation of standard expenditure needs and standard level of local services. *Local Government Studies*, 46(5):734–762, 2020. ISSN 1743-9388. doi: 10.1080/03003930.2019.1682558. URL <https://doi.org/10.1080/03003930.2019.1682558>
- 2019 M. Auteri, C.Guccio, F.Pammolli, G.Pignataro, and F.Vidoli. Spatial heterogeneity in non-parametric efficiency: An application to italian hospitals. *Social Science & Medicine*, 239, 2019. ISSN 0277-9536. doi: 10.1016/j.socscimed.2019.112544. URL <https://doi.org/10.1016/j.socscimed.2019.112544>
- 2018 Francesco Vidoli and Elisa Fusco. Level of services, spatial dependence and allocative efficiency in local governments. *Local Government Studies*, 44(6): 848–873, 2018. ISSN 1743-9388. doi: 10.1080/03003930.2018.1512491. URL <http://doi.org/10.1080/03003930.2018.1512491>
- 2018 Elisa Fusco, Francesco Vidoli, and Biresh K. Sahoo. Spatial heterogeneity in composite indicator: A methodological proposal. *Omega*, 77:1–14, 2018. ISSN 0305-0483. doi: 10.1016/j.omega.2017.04.007. URL <https://doi.org/10.1016%2Fj.omega.2017.04.007>

2017

Giancarlo Ferrara and Francesco Vidoli. Semiparametric stochastic frontier models: A generalized additive model approach. *European Journal of Operational Research*, 258(2):761–777, 2017. ISSN 0377-2217. doi: 10.1016/j.ejor.2016.09.008. URL <https://doi.org/10.1016%2Fj.ejor.2016.09.008>

2016

Francesco Vidoli, Concetta Cardillo, Elisa Fusco, and Jacopo Canello. Spatial nonstationarity in the stochastic frontier model: An application to the italian wine industry. *Regional Science and Urban Economics*, 61:153 – 164, 2016. ISSN 0166-0462. doi: 10.1016/j.regsciurbeco.2016.10.003. URL <http://dx.doi.org/10.1016/j.regsciurbeco.2016.10.003>

2016

Francesco Porcelli, Francesco Vidoli, Roberto Dispoticò, and Danilo Ballanti. *Public Sector Economics and the Need for Reforms*, chapter Measuring Public Sector Performance: A Four Quadrants Model to Monitor Local Governments’ Efficiency, pages 293–335. MIT Press, 2016. ISBN 9780262034449

2016

Francesco Vidoli and Jacopo Canello. Controlling for spatial heterogeneity in nonparametric efficiency models: An empirical proposal. *European Journal of Operational Research*, 249(2):771–783, 2016. ISSN 0377-2217. doi: 10.1016/j.ejor.2015.10.050. URL <https://doi.org/10.1016/j.ejor.2015.10.050>

2015

Fabio Pammolli, Francesco Porcelli, Francesco Vidoli, and Guido Bora'. La spesa sanitaria delle regioni in italia - SaniRegio2015 (health expenditure of the regions in italy - SaniRegio2015). *SSRN Electronic Journal*, 2015. doi: 10.2139/ssrn.2664213. URL <https://doi.org/10.2139%2Fssrn.2664213>

2015

Francesco Vidoli, Elisa Fusco, and Claudio Mazziotta. Non-compensability in composite indicators: A robust directional frontier method. *Social Indicators Research*, 122(3):635–652, 2015. ISSN 0303-8300. doi: 10.1007/s11205-014-0710-y. URL <https://doi.org/10.1007/s11205-014-0710-y>

2015

F. Vidoli and G. Ferrara. Analyzing italian citrus sector by semi-nonparametric frontier efficiency models. *Empirical Economics*, 49(2):641–658, 2015. ISSN 1435-8921. doi: 10.1007/s00181-014-0879-6. URL <https://doi.org/10.1007/s00181-014-0879-6>

- 2014 Giancarlo Ferrara, Francesco Vidoli, Arianna Campagna, and Jacopo Canello. A non-parametric stochastic frontier for the analysis of labour-use efficiency in the italyan machinery industry. *Quaderni di Statistica - Journal of Methodological and Applied Statistics*, 16, 2014. ISSN 1594-3739. URL <http://qds.liguori.it/index.php/qds/index>
- 2014 Claudia Settimi, Francesco Vidoli, Elisa Fusco, and Danilo Ballanti. Estimating technical efficiency in the italyan municipalities. *Procedia Economics and Finance*, Elsevier, 17:131–137, 2014. ISSN 2212-5671. URL [https://doi.org/10.1016/S2212-5671\(14\)00887-9](https://doi.org/10.1016/S2212-5671(14)00887-9)
- 2013 Francesco Vidoli and Claudio Mazziotta. Robust weighted composite indicators by means of frontier methods with an application to european infrastructure endowment. *Statistica Applicata, Italian Journal of Applied Statistics*, 23:259–282, 2013a. ISSN 1125-1964. URL [http://sa-ijas.stat.unipd.it/sites\(sa-ijas.stat.unipd.it/files/06.pdf](http://sa-ijas.stat.unipd.it/sites(sa-ijas.stat.unipd.it/files/06.pdf)
- 2013 Elisa Fusco and Francesco Vidoli. Spatial stochastic frontier models: controlling spatial global and local heterogeneity. *International Review of Applied Economics*, 27(5):679–694, 2013. ISSN 0269-2171. doi: 10.1080/02692171.2013.804493. URL <https://doi.org/10.1080/02692171.2013.804493>
- 2013 Francesco Vidoli and Claudio Mazziotta. *Territorio, Istituzioni, Crescita: Scienze regionali e sviluppo del paese*, chapter Verifiche di robustezza di indicatori sintetici ponderati costruiti attraverso approcci DEA: questioni di metodo e riscontri empirici. Franco Angeli, Milano, Collana a cura dell’Associazione Italiana di Scienze Regionali (AISRe), 2013b. ISBN 9788820448790. URL [https://www.francoangeli.it/Ricerca/Scheda\\_libro.aspx?CodiceLibro=1390.50](https://www.francoangeli.it/Ricerca/Scheda_libro.aspx?CodiceLibro=1390.50)
- 2012 Francesco Vidoli and Claudio Mazziotta. Spatial composite and disaggregate indicators: Chow-lin methods and applications. *Territorio Italia - Land Administration, Cadastre, Real estate*, 2:9–19, 2012. URL <https://goo.gl/naenQj>
- 2011 F. Vidoli. Evaluating the water sector in italy through a two stage method using the conditional robust nonparametric frontier and multivariate adaptive regression splines. *European Journal of Operational Research*, 212(3):583–595, 2011. ISSN 0377-2217. doi: 10.1016/j.ejor.2011.02.003. URL <https://doi.org/10.1016/j.ejor.2011.02.003>
- 2010 Francesco Vidoli and Rita Mileno. Un confronto tra modelli dea e mars (multivariate adaptive regression splines) nella stima dell’efficienza produttiva nel servizio idrico integrato in italia. *Rivista di Economia e Statistica del territorio*, 2, 2010. URL [https://www.francoangeli.it/Riviste/Scheda\\_rivista.aspx?IDArticolo=39579](https://www.francoangeli.it/Riviste/Scheda_rivista.aspx?IDArticolo=39579)

- 2010 Claudio Mazziotta, Matteo Mazziotta, Adriano Pareto, and Francesco Vidoli. La sintesi di indicatori territoriali di dotazione infrastrutturale: Metodi di costruzione e procedure di ponderazione a confronto. *Rivista di Economia e Statistica del Territorio*, 1:7–33, 2010. URL [https://www.francoangeli.it/Riviste/Scheda\\_rivista.aspx?IDArticolo=38632](https://www.francoangeli.it/Riviste/Scheda_rivista.aspx?IDArticolo=38632)
- 2009 Claudio Mazziotta and Francesco Vidoli. La costruzione di un indicatore sintetico ponderato. un'applicazione della procedura benefit of the doubt al caso della dotazione infrastrutturale in italia. *Scienze Regionali*, 8:35–69, 2009. URL [https://www.francoangeli.it/Riviste/Scheda\\_rivista.aspx?IDArticolo=35518](https://www.francoangeli.it/Riviste/Scheda_rivista.aspx?IDArticolo=35518)
- 2007 Pföestl E. (a cura di), “*La dispersione scolastica nella Regione Lazio*”, quaderno n.15, Istituto di Studi politici S. Pio V, Roma - chapter 1, [\[link\]](#).
- 2006 AA.VV., “*Ritardi della giustizia civile e ricadute sul sistema economico*”, ISTAT, Collana dei Quaderni del MIPA, [\[link\]](#), [\[pdf\]](#).
- 2006 Corradini G. (a cura di), “*La spesa per istruzione: gli indicatori economici per il finanziamento del sistema scolastico*”, Università degli Studi di Roma La Sapienza - Facoltà di Filosofia, Edizioni Nuova Cultura, [\[pdf\]](#).
- 2005 Pföestl E. (a cura di), “*La dispersione scolastica: analisi storica e proposte normative*” , quaderno n.9, Istituto di Studi politici S. Pio V, Roma - chapters 2, 3 and 4, [\[link\]](#).
- 2004 Vidoli F., “*Processi educativi ed efficienza relativa: un'applicazione DEA su 290 istituti scolastici*”, Statistica Applicata – Italian Journal of Applied Statistics, Volume 16, n.1, [\[pdf\]](#).
- 2003 Asquini G., Bettoni C., ”*La ricerca Aspis: analisi delle spese per l'istruzione*”, Franco Angeli - chapters 7 and 9, [\[link\]](#).
- 2002 AA.VV., “*Introduzione dell'ISSEE nel servizio nidi del comune di Roma*”, ISTAT, [\[link\]](#), [\[pdf\]](#).
- 2001 Di Martino V., “*The High Road to Teleworking*”, International Labour Office, Geneva - collaboration for post graduation thesis, [\[link\]](#), [\[pdf\]](#).

## Presentations at international scientific meetings

- 2019 “*Formal Cooperation and Knowledge Diffusion in Industrial Districts: The Role of Strategic Alliances*”, with J. Canello, 5<sup>th</sup> Geography of Innovation Conference - GeoInno2020, Stavanger, NO, 29-31 January 2020.
- 2019 “*Investigating space-time patterns of regional industrial resilience through a micro-level approach: an application to the Italian wine industry*”, with J. Canello, 16<sup>th</sup> EU-REAL Workshop, Pescara, IT, 3-4 September 2019.
- 2018 “*Spatial heterogeneity in nonparametric efficiency: an application to Italian hospitals*”, with F. Pammolli, G. Pignataro, M. Auteri & C. Guccio, 6<sup>th</sup> International Workshop on Efficiency, Huddersfield, UK, 7-9 September 2018.
- 2017 “*Spatial nonstationarity in the stochastic frontier model: An application to the Italian wine industry*”, with Cardillo C., 19<sup>th</sup> meeting of the OECD Farm-level Analysis Network, 22-23 May 2017, Paris.
- 2017 “*Formal cooperation and relational networks in industrial districts: the role of strategic alliances*”, with Canello J., AAG Annual Meeting, April 2017, Boston.
- 2016 “*Spatial nonstationarity in the stochastic frontier model: an application to the Italian wine industry*”, VII International Conference on the Modernization of Agriculture Statistics, October 2016, Rome - DOI: 10.1481/icasVII.2016.b08b.
- 2015 “*Infrastructure Local Expenditure Needs: a proposal for Italian municipalities*”, Dealing with Complexity in Society conference, September 2015, Padua.
- 2015 “*A spatial conditioned nonparametric efficiency proposal*”, Workshop on the Econometrics and Statistics of Efficiency Analysis: Recent Developments and Perspectives, June 2015, Lecce.
- 2014 “*Student learning assessment: a non-compensative robust composite measure in Italy*”, Efficiency in Education Workshop, The Work Foundation, September 2014, London.
- 2014 “*A simple four quadrants model to monitor the performance of local governments*”, with D. Ballanti, R. Dispoticco and F. Porcelli, CESifo Venice Summer Institute, 25 – 26 July 2014, Venice.
- 2014 “*Non-compensability in composite indicators: a robust directional frontier method*”, with Fusco E. and Mazziotta C., 47<sup>th</sup> Scientific meeting of the Italian Statistical Society (SIS), Cagliari.
- 2014 “*Labour-use efficiency in the Italian machinery industry: a non-parametric stochastic frontier perspective*”, with Ferrara G., Campagna A. and Canello J., 47<sup>th</sup> Scientific meeting of the Italian Statistical Society (SIS), Cagliari.
- 2013 “*Local governments, expenditure needs and level of services: a parametric approximation of nonparametric robust frontier approach*”, with Daraio C. and Fusco E., 26<sup>th</sup> European Conference on Operational Research (EURO - INFORMS), Rome.

- 2013 “*Beyond the threshold: the efficiency of Italian manufacturing firms*”, with Ferrara G. - 28<sup>th</sup> edition of the International Workshop on Statistical Modelling (IWSM), Palermo.
- 2011 “*Parametric and Semi-Parametric Frontier Efficiency Models: An Application to Italian Agriculture*”, with Cardillo C., Eighth meeting of the OECD Farm-level Analysis Network, 3-4 November 2011, Paris.
- 2011 “*Sustainable Value in Italian agricultural field: parametric and semi-parametric frontier efficiency models*”, with Cardillo C. and Ferrara G., XII European Workshop on Efficiency and Productivity Analysis (EWEPA), Verona.
- 2010 “*Spatial Composite and Disaggregate Indicators: Chow-Lin Methods and Applications*”, with Mazziotta C., 45<sup>th</sup> Scientific meeting of the Italian Statistical Society (SIS), Padova, ISBN 978-88-6129-566-7.
- 2009 “*Evaluating the water sector in Italy through a two stage method using the robust nonparametric frontier and multivariate adaptive regression splines*”, XI European Workshop on Efficiency and Productivity Analysis (EWEPA), Pisa.
- 2008 “*Constructing a variance weighted BoD (Benefit of Doubt) composite indicator and its confidence interval through bootstrap: an application to Italian Infrastructural Endowment*”, 48<sup>th</sup> Congress of the European Regional Science Association, Liverpool.

### Presentations at national meetings

- 2019 “*Investigating space-time patterns of regional industrial resilience through a micro-level approach: an application to the Italian wine industry*”, with J. Canello, 43<sup>rd</sup> Annual Meeting of the Association for Mathematics Applied to Economics and Social Sciences (AMASES), Perugia, IT, 9-11 September 2019.
- 2016 “*Spatial nonstationarity in the stochastic frontier model: an application to the Italian wine industry*”, at XXVIII Annual conference of the Italian society of public economics (SIEP), 22-23 September 2016, Lecce.
- 2015 “*La stima del livello standard delle prestazioni*”, corso interno Banca d’Italia “Attuazione e prospettive del federalismo fiscale”, 25 novembre 2015, Roma.
- 2014 “*A comprehensive model for the evaluation of the local governments’ expenditure needs and the essential level of local services*”, at the PhD thesis “Giorgio Leonardi” awards ceremony, XXXV Conferenza Italiana di Scienze Regionali, Padova, AISRe.
- 2014 “*Livelli infrastrutturali e fabbisogni standard di parte capitale: problemi metodologici ed applicativi*”, Giornata di Studio in onore del Prof. Claudio Mazziotta, Università di Roma Tre, Roma.
- 2013 “*Infrastructure Local Expenditure Needs: a proposal for Italian municipalities*”, with Mazziotta C. and Porcelli F., XXXIV Conferenza Italiana di Scienze Regionali, Palermo, AISRe.

- 2012 “*Robust weighted composite indicators by means of frontier methods: An application to European infrastructure endowment*”, with Mazziotta C., XXXIII Conferenza Italiana di Scienze Regionali, Roma, AISRe.
- 2012 “*A comprehensive model for the evaluation of the local governments expenditure needs and the essential level of local services*”, with Porcelli F., 53 RSA Italian Economic Association Conference, Matera.
- 2010 “*Stima di indicatori di dotazione infrastrutturale sulla base di modelli di disaggregazione spaziale*”, with Mazziotta C., XXXI Conferenza Italiana di Scienze Regionali, Aosta, AISRe.
- 2009 “*Robustezza e stabilità spaziale di indicatori di dotazione infrastrutturale: una verifica per le province italiane*”, with Mazziotta C., XXX Conferenza Italiana di Scienze Regionali, Firenze, AISRe.
- 2008 “*La costruzione di un indicatore sintetico ponderato di dotazione infrastrutturale: metodi e applicazioni a confronto*” with Mazziotta C., Mazziotta M. and Pareto A., XXIX Conferenza Italiana di Scienze Regionali, Bari, AISRe.
- 2007 “*Un confronto tra modelli DEA e MARS (Multivariate Adaptive Regression Splines) nella stima dell’efficienza produttiva nei servizi pubblici*”, CREI (Centro di Ricerca interdipartimentale di Economia delle Istituzioni – Roma Tre).
- 2007 “*Il problema della ponderazione nella costruzione di un indicatore sintetico di dotazione infrastrutturale: un’applicazione BOD vincolata*”, with Mazziotta C., XXVIII Conferenza Italiana di Scienze Regionali, Bolzano, AISRe.
- 2006 “*L’efficienza del servizio idrico in Italia: un’analisi territoriale*”, with Mazziotta C. and Ferretti F., XXVII Conferenza Italiana di Scienze Regionali, Pisa, AISRe.

## Work in Progress

Production efficiency: Nonparametric spatial and directional *two stage* methods;

Composite indicators: alternative methods of construction through frontier methods (*conditional order-m*);

Spatial Chow-Lin methods: Reconstruction of micro-level disaggregated data with spatial effects and in the presence of approximate data.

## Original statistical software

- 2014 “*R package Compind*: Compind package contains several functions to enhance approaches to the Composite Indicators methods, focusing, in particular, on the normalisation and weighting-aggregation steps. [\[url\]](#) + [\[web interface\]](#)
- 2015 “*R package semsfa*: Semiparametric Estimation of Stochastic Frontier Models through a two step procedure: in the first step semiparametric or nonparametric regression

techniques are used to relax parametric restrictions of the functional form representing technology and in the second step variance parameters are obtained by pseudolikelihood estimators or by method of moments. [\[url\]](#)

- 2015 “*R package ssfa*: Spatial Stochastic Frontier Analysis (SSFA) is an original method for controlling the spatial heterogeneity in Stochastic Frontier Analysis (SFA) models by splitting the inefficiency term into three terms: the first one related to spatial peculiarities of the territory in which each single unit operates, the second one related to the specific production features and the third one representing the error term. [\[url\]](#)
- 2018 “*R package PROMETHEE*: Functions which can be used to support the Multicriteria Decision Analysis (MCDA) process involving multiple criteria, by PROMETHEE (Preference Ranking Organisation METHod for Enrichment of Evaluations). [\[url\]](#)
- 2020 “*R package SpatialRegimes*: A collection of functions for estimating spatial regimes, aggregations of neighbouring spatial units that are homogeneous in functional terms. [\[url\]](#) + [\[web interface\]](#)

## Summer schools

- 2012 Seventh Summer School on Sensitivity Analysis of Model Output ”SAMO 2012” organised by the Joint Research Centre of the European Commission, 3 - 6 July 2012.

## What I did in SOSE (2003-2021)

- 2003-2009 I worked on “Studi di settore” area, an instrument of fairness and transparency in the relationship tax-payer, assessing the ability of firms to produce revenue related to the organizational structure adopted and the economic environment in which they operate.
- 2009-2011 I worked on “Redditometro” project for the Italian National tax Authority on a very extended database (more than 42 million of records) with the aim to estimate personal taxpayers income.
- 2011-2013 I worked on determination of expenditure standard needs for Italian Municipalities and Provinces (for more info, please see the Legislative Decree No. 216 of 26 November 2010).
- 2013-2021 I worked in the SOSE methodological area covering different issues related to the economic firm studies, research tax and fiscal federalism.

## Service to the profession

- 2001-2003 Researcher at the MIPA (Consortium for the Development of Methodology and Innovation in Public Administration) has worked on several projects for Comune di

Roma (ISEE project), AIPA (Authority for information technology in public administration), University of Roma Tre, INVALSI (National Institute for the Evaluation of the Education and Training) and ISTAT.

- 2005 Collaboration in the research project “*Definizione di una metodologia di stima del fabbisogno di spesa nel settore istruzione*” [Methodological definition for estimating education spending demand] commissioned by Alta Commissione di Studio per la definizione dei meccanismi strutturali del Federalismo Fiscale, [\[pdf\]](#).
- 2005-2007 Collaboration in the research project “*La dispersione scolastica: analisi storica e normativa*” [The school dropout: historical analysis and normative] commissioned by Istituto di Studi politici, University S. Pio V of Rome.
- 2007-2008 Collaboration with the Guglielmo Tagliacarne Institute in the project aimed at creation of composite competitiveness indicators at regional level.
- 2012 Seminar in “*Fiscal perequation and expenditure needs in federal reforme*”, Scuola Superiore della Pubblica Amministrazione della Presidenza del Consiglio dei Ministri.
- 2014 Collaboration with CeRM Lab [\[link\]](#) for *Saniregio3* project, the third release of the econometric panel model comparing the expenditure efficiency and the quality of the health system for the Italian regions.

## Computer skills

SAS Base, Advanced SAS, SAS Macro and SAS SQL course teacher carried to ISTAT and University of Roma Tre.

R course teacher and developer.

Very good practice of other statistical software applications such as SPSS or STATA and database software as MSAccess and SQL.

He attended SPSS Italy courses such as:

- Statistical Analysis with SPSS;
- Multivariate statistical analysis applied to social research and marketing.

He attended SAS Institute Italy courses such as:

- Multivariate Statistical Analysis;
- SAS Macro Language and SAS Macro Language Advanced;
- Using SQL with SAS;
- Time series forecasting;
- Mixed Models with SAS.

	Oral	Written
Italian	Mother tongue	Mother tongue
English	Working knowledge	Fluent
French	Fluent	Working knowledge

## Languages

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV.

I agree with personal data processing in accordance with Italian 675/96 law.

For more information, please see: <http://fvidoli.weebly.com/>

Last updated: January 23, 2024

A handwritten signature in blue ink, appearing to read "Francesco Vidoli".