

CATIA SCRICCILO

CV

Recapiti

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Posizioni

2015–	PROFESSORE ASSOCIATO DI STATISTICA , Dip.to di Scienze Economiche, Univ. Verona (IT)
2007–2015	ASSISTANT PROFESSOR DI STATISTICA , Dip.to di Scienze delle Decisioni, Univ. Bocconi, Milano (IT)
2004–2007	ASSEGNISTA DI RICERCA IN STATISTICA , Istituto di Metodi Quantitativi, Univ. Bocconi, Milano (IT)
2002–2004	BORSISTA POST DOTTORATO IN STATISTICA , Dip.to di Scienze Statistiche, Univ. Padova (IT)

Abilitazione

MAR 2017	Abilitazione Scientifica Nazionale alle funzioni di Professore di I Fascia nel Settore Concorsuale 13/D1-STATISTICA valida dal 31/03/2017 al 31/03/2029
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Studi

2002	DOTTORATO DI RICERCA IN STATISTICA , Dip.to di Scienze Statistiche, Univ. Padova (IT).
1998	LAUREA IN STATISTICA , Univ. Roma “La Sapienza”.

Interessi di Ricerca

Stima non parametrica di curve
Modelli miscuglio
Teoria per grandi campioni
Procedure bayesiane empiriche
Stima bayesiana adattiva di curve
Problemi bayesiani inversi

Working paper

Scricciolo, C. (2025). Adaptive minimax-optimal Wasserstein deconvolution with unknown error distributions. *Department of Economics (DSE), Univ. of Verona, WP Number: 7 July 2025, ISSN: 2036-2919 (paper), 2036-4679 (online). Submitted.*

- **Scricciolo, C.** (2025). Minimax rates for Wasserstein deconvolution of regular distributions with ordinary smooth errors. *Statistical Methods & Applications*, **34**, 471–498. <https://doi.org/10.1007/s10260-025-00795-z>
- Rousseau, J., **Scricciolo, C.** (2024). Wasserstein convergence in Bayesian and frequentist deconvolution models. *The Annals of Statistics*, **52**(4), 1691–1715. <https://projecteuclid.org/journals/annals-of-statistics/volume-52/issue-4>
- **Scricciolo, C.** (2018). Bayes and maximum likelihood for L^1 -Wasserstein deconvolution of Laplace mixtures. *Statistical Methods & Applications*, **27**(2), 333–362. https://link.springer.com/article/10.1007/s10260-017-0400-4?wt_mc=alerts.TOCjournals&utm_source=toc&utm_medium=email&utm_content=10260&utm_campaign=#citeas
- Donnet, S., Rivoirard, V., Rousseau, J., **Scricciolo, C.** (2018). Posterior concentration rates for empirical Bayes procedures with applications to Dirichlet process mixtures. *Bernoulli*, **24**(1), 231–256. <http://projecteuclid.org/euclid.bj/1501142441>
- Donnet, S., Rivoirard, V., Rousseau, J., **Scricciolo, C.** (2017). Posterior concentration rates for counting processes with Aalen multiplicative intensities. *Bayesian Analysis*, **12**(1), 53–87. <https://projecteuclid.org/euclid.ba/1451333725>
- **Scricciolo, C.** (2015). Empirical Bayes conditional density estimation. *STATISTICA*, **LXXV**(1), 37–55. <http://rivista-statistica.unibo.it/article/view/5822/0>
- **Scricciolo, C.** (2015). Bayesian adaptation. *Journal of Statistical Planning and Inference*, **166**, 87–101. <http://authors.elsevier.com/a/1RcN11M25x-3Ky>
- Petrone, S., Rizzelli, S., Rousseau, J., **Scricciolo, C.** (2014). Empirical Bayes methods in classical and Bayesian inference. *METRON*, **72**(2), 201–215. <http://link.springer.com/article/10.1007/s40300-014-0044-1>
- **Scricciolo, C.** (2014). Adaptive Bayesian density estimation in L^p -metrics with Pitman-Yor or normalized inverse-Gaussian process kernel mixtures. *Bayesian Analysis*, **9**(2), 475–520. http://projecteuclid.org/download/pdfview_1/euclid.ba/1401148317
- Petrone, S., Rousseau, J., **Scricciolo, C.** (2014). Bayes and empirical Bayes: do they merge? *Biometrika*, **101**(2), 285–302. Supplementary material for “Bayes and empirical Bayes: do they merge?” *Biometrika*, 1–8. <http://biomet.oxfordjournals.org/content/early/2014/04/09/biomet.ast067.abstract>
- **Scricciolo, C.** (2011). Posterior rates of convergence for Dirichlet mixtures of exponential power densities. *Electronic Journal of Statistics*, **5**, 270–308. https://projecteuclid.org/download/pdfview_1/euclid.ejs/1303996031
- **Scricciolo, C.** (2008). A note on Bayesian nonparametric regression function estimation. *Statistical Methods & Applications*, **17**(3), 321–334. <http://link.springer.com/article/10.1007%2Fs10260-007-0064-6>
- **Scricciolo, C.** (2007). On rates of convergence for Bayesian density estimation. *Scandinavian Journal of Statistics*, **34**(3), 626–642. <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-9469.2006.00540.x/abstract>
- **Scricciolo, C.** (2006). Convergence rates for Bayesian density estimation of infinite-dimensional exponential families. *The Annals of Statistics*, **34**(6), 2897–2920. https://projecteuclid.org/download/pdfview_1/euclid.aos/1179935069
- **Scricciolo, C.** (1999). Probability matching priors: a review. *Journal of the Italian Statistical Society*, **8**(1), 83–100. <http://link.springer.com/article/10.1007%2FBF03178943>

Capitoli di Libro

- **Scricciolo, C.** (2025+). Bayesian nonparametric mixing distribution estimation in the Gaussian-smoothed 1-Wasserstein distance. To appear in the series “*Springer Proceedings in Mathematics & Statistics*”.
- **Scricciolo, C.** (2022). Bayesian quantile estimation in deconvolution. In: Nicola Salvati, Cira Perna, Stefano Marchetti, Raymond Chambers (Editors), *Studies in Theoretical and Applied Statistics, SIS 2021, Pisa, Italy, June 21–25, Springer Proceedings in Mathematics & Statistics, vol. 406*. Springer Cham, pp. 135–150. <https://doi.org/10.1007/978-3-031-16609-9>
- **Scricciolo, C.** (2019). Bayesian Kantorovich Deconvolution in Finite Mixture Models. In: Petrucci A., Racioppi F., Verde R. (eds) *New Statistical Developments in Data Science. SIS 2017. Springer Proceedings in Mathematics & Statistics, vol 288*. Springer, Cham, pp. 119–134. https://doi.org/10.1007/978-3-030-21158-5_10

- **Scricciolo, C.** (2016). Rates for Bayesian Estimation of Location-Scale Mixtures of Super-Smooth Densities. In: Allewa G., Giommi A. (eds) Topics in Theoretical and Applied Statistics. Studies in Theoretical and Applied Statistics. Springer, Cham, pp. 49-57. https://doi.org/10.1007/978-3-319-27274-0_5
- Rousseau, J., Salomond, J.-B., **Scricciolo, C.** (2014). On some aspects of the asymptotic properties of Bayesian approaches in nonparametric and semiparametric models. *ESAIM: Proc.* **01/2014**, **44**, *Journées MAS 2012*, 159–171. <http://www.esaim-proc.org/articles/proc/pdf/2014/01/proc144410.pdf>

Voci in International Encyclopedia of Statistical Science (IESS), Seconda Edizione

- **Scricciolo, C.** (2025). Bayesian Adaptation. In *International Encyclopedia of Statistical Science*, Second Edition, Lovric M. (Editor), Springer Berlin, Heidelberg, pp. 165–168. ISBN 978-3-662-69358-2 <https://link.springer.com/referencework/10.1007/978-3-642-04898-2?page=2#overview>
- **Scricciolo, C.** (2025). Empirical Bayes. In *International Encyclopedia of Statistical Science*, Second Edition, Lovric M. (Editor), Springer Berlin, Heidelberg, pp. 798–801. ISBN 978-3-662-69358-2 <https://link.springer.com/referencework/10.1007/978-3-642-04898-2?page=2#overview>

Pubblicazioni con Referaggio in Atti di Convegno

- **Scricciolo, C.** (2025). Minimax rates of convergence for multivariate deconvolution in the L^1 -distance with ordinary smooth errors. *Proceedings of the 7th International Conference on Statistics: Theory and Applications (ICSTA'25), Paris, France - August, 2025, Paper No. 159*. DOI: 10.11159/icsta25.159.
- **Scricciolo, C.** (2025). Wasserstein deconvolution with unknown error distribution. In *Statistics for Innovation IV. SIS 2025, Short Papers, Contributed Sessions 3. Conference Proceedings SIS 2025*. Editors: E. di Bella, V. Gioia, C. Lagazio, S. Zaccarin, Springer, pp. 331–337. ISBN 978-3-031-96032-1.
- **Scricciolo, C.** (2024). Minimax rates for Wasserstein deconvolution of regular distributions with known ordinary smooth errors. In *Methodological and Applied Statistics and Demography IV. SIS 2024, Short Papers, Contributed Sessions 2*. Editors: Pollice A., Mariani P., Springer, pp. 528–533. ISBN 978-3-031-64446-7.
- **Scricciolo, C.** (2023). Bayesian mixing distribution estimation in the Gaussian-smoothed 1-Wasserstein distance. In: *Book of Short Papers-SIS 2023 - Statistical Learning, Sustainability and Impact Evaluation, Ancona (Italy), June 21, 2023 – June 23, 2023*. Pearson, pp. 282-286. ISBN 9788891935618.
- **Scricciolo, C.** (2021). Bayesian quantile estimation in deconvolution. In: *Book of Short Papers-SIS 2021, Pisa, 21–25 giugno 2021*. Pearson, pp. 1032-1036. ISBN 9788891927361.
- **Scricciolo, C.** (2020). Empirical Bayes estimation for mixture models. In: *Book of Short Papers-SIS 2020*, Pearson, pp. 667-672. ISBN 9788891910776.
- **Scricciolo, C.** (2017). Asymptotically efficient estimation in measurement error models. In: *SIS 2017. Statistics and Data Science: new challenges, new generations: 28-30 June 2017 Florence (Italy): proceedings of the Conference of the Italian Statistical Society / edited by Alessandra Petrucci, Rosanna Verde – Firenze: Firenze University Press, 2017. (Proceedings e report; 114), pp. 913-918*. ISBN 978-88-6453-521-0.
- **Scricciolo, C.** (2016). On Deconvolution of Dirichlet-Laplace Mixtures. In: *Proceedings of the 48th Scientific Meeting of the Italian Statistical Society, Atti di “SIS2016”, Università degli Studi di Salerno, June 8th–June 10th, 2016*, pp. 1-6. ISBN 9788861970618
- Donnet, S., Rivoirard, V., Rousseau, J., **Scricciolo, C.** (2014). On convergence rates of empirical Bayes procedures. Paper available at <http://www.sis2014.it/proceedings/allpapers/2918.pdf>
47th Scientific Meeting of the Italian Statistical Society, Cagliari, June 11–13, 2014, Proceedings, Editors: S. Cabras, T. Di Battista and W. Racugno. ISBN: 978-88-8467-874-4. © 2014 CUEC Cooperativa Universitaria Editrice Cagliaritano.
- **Scricciolo, C.** (2012). Rates for Bayesian estimation of location-scale mixtures of super-smooth densities. *Proceedings of the XLVI Scientific Meeting of the Italian Statistical Society, Rome, 20–22 June 2012*. Paper available at <http://meetings.sis-statistica.org/index.php/sm/sm2012/paper/viewFile/2230/110> ISBN 9788861298828.

Extended version accepted for publication in the Springer Volume of the 46th Scientific Meeting of the Italian Statistical Society, Rome, 20–22 June 2012. Springer Volume of the International Series “Studies in Theoretical and Applied Statistics”.

- Scricciolo, C. (2007). A note on Bayesian density estimation. *Proceedings of the Intermediate Scientific Meeting of the Italian Statistical Society–Risk and Prediction, Venice, 6–8 June 2007*, pp. 579–580. Cleup-Padova. ISBN 9788861290938.
- Scricciolo, C. (2006). On Bayesian adaptive regression function estimation. *Proceedings of the XLIII Scientific Meeting of the Italian Statistical Society, Turin, 14–16 June 2006*, pp. 47–50, Cleup-Padova, ISBN 8871787919.
- Scricciolo, C. (2004). Asymptotic issues for Bayesian histograms. *Proceedings of the XLII Scientific Meeting of the Italian Statistical Society, Bari, 9–11 June 2004*, pp. 405–408. Cleup-Padova, ISBN 8871780345.

Pubblicazioni senza Referaggio in Atti di Convegno

- Scricciolo, C. (2009). Rates of convergence for Bayes estimators of mixtures of exponential power densities. In *S.Co.2009 Sixth Conference, Proceedings, Milan, 14–16 September 2009*, pp. 399–404. Maggioli Editore, ISBN 8838743851.
- Scricciolo, C. (2007). On a sub-optimality conjecture. In *S.Co.2007 Fifth Conference, Book of short papers, Venice, 6–8 September 2007*, pp. 457–462. Cleup-Padova, ISBN 9788861291140.
- Scricciolo, C. (2005). On Bayesian nonparametric regression function estimation. In *S.Co.2005 Fourth Conference, Book of short papers, Brixen, Italy, 15–17 September 2005*, pp. 413–418. Cleup-Padova.

ATTIVITÀ EDITORIALE

- 2021–2024 *EA Bayesian Analysis* 01/01/2021–31/12/2024.
- 2016– *EA Sankhya Series A, Math. Stat. and Prob.* dal 01/01/2016.
- 2014– *EA Statistics & Probability Letters* dal 01/11/2014.

ATTIVITÀ DI REFERAGGIO

Metron (2025); *Bayesian Analysis* (2025); *IEEE Transactions on Information Theory* (2022); *ESAIM Probability & Statistics* (2012); *The Annals of Statistics* (2010, 2011, 2012, 2013a, 2013b, 2014, 2015, 2016, 2022, 2024, 2025); *Bernoulli* (2005, 2015, 2017, 2021); *Electronic Journal of Statistics* (2008, 2010, 2012, 2013, 2014, 2016, 2018, 2020, 2024); *Journal of Statistical Planning and Inference* (2016); *Test* (2008); *Annales de l'Institut Henri Poincaré* (2009); *Annales de l'I.S.U.P.* (2003); *STATISTICA* (2015, 2017)

ATTIVITÀ ORGANIZZATIVE

- Co-Organizzatore insieme a R. Argiento (Univ. Bergamo (IT)) di una Organized Invited Session (virtual session CO056: *Bayesian Nonparametric Mixture Modeling and Clustering*) at CMStatistics 2025, King's College London (UK), 13–15/12/2025.
- Organizzatore e *chair* di una Organized Invited Session (virtual session CO069: *Advances in high/infinite-dimensional inference*) at CMStatistics 2024, King's College London (UK), 14–16/12/2024.
- Membro del Comitato Scientifico e Organizzatore insieme a J. Rousseau (Univ. Paris-Dauphine, FR, & Univ. of Oxford, UK) e L. Frattarolo (Univ. Verona, IT) di un Workshop on “Advances in High/Infinite-Dimensional Inference” (AHIDI2024), Univ. Verona (IT), 7-8/11/2024.
- Organizzatore e *chair* di una Organized Invited Session (virtual session EO121: *Bayesian asymptotics*) at CMStatistics 2023, HTW Berlin, University of Applied Sciences, Berlin, Germany, 16–18 December 2023.
- Organizzazione di un workshop “*Eco-Stat Asymptotics*”, Univ. Verona (IT), 11 settembre 2023.
- Organizzatore e *chair* di una Organized Invited Session (virtual session EO392: *Advances in non- and semi-parametric inference for complex data*) at CMStatistics 2022, King's College London, 17–19 December 2022.
- Organizzatore e *chair* di una Organized Invited Session (virtual session EO796: *Machine learning and statistical inverse problems*) at CMStatistics 2021, London (IT), 18–20 December 2021.
- Organizzazione di uno *Short Course on Model Selection*, tenuto dalla Prof.ssa G. Claeskens, K.U. Leuven, Belgium, 19 maggio 2011, PhD Program in Statistics, Univ. Bocconi.
- Organizzatore e *chair* della Specialized Session *Bayesian Nonparametrics* allo S.Co. 2011, Padova, 19–21 settembre 2011.

TM: Voci in International Encyclopedia of Statistical Science (IESS), Seconda Edizione

- **Scricciolo, C.** (2025). Bayesian Adaptation. In *International Encyclopedia of Statistical Science*, Second Edition, M. Lovric (Editor), Springer Berlin, Heidelberg, pp. 165–168. ISBN 978-3-662-69358-2 <https://link.springer.com/referencework/10.1007/978-3-642-04898-2?page=2#overview>
- **Scricciolo, C.** (2025). Empirical Bayes. In *International Encyclopedia of Statistical Science*, Second Edition, M. Lovric (Editor), Springer Berlin, Heidelberg, pp. 798–801. ISBN 978-3-662-69358-2 <https://link.springer.com/referencework/10.1007/978-3-642-04898-2?page=2#overview>

Affiliazione a Società Scientifiche

- 2004– *Società Italiana di Statistica (SIS)*.
- 2009– *International Society for Bayesian Analysis (ISBA)*.
- 2020– *Unione Matematica Italiana (UMI) since 2020*.
- 2020– *Gruppo Nazionale di Ricerca INdAM–GNAMPA*.