Curriculum Vitae

Pietro Rigo

February 16, 2024

Civil status and addresses

- Born in Arezzo, 9th january 1958. Married with a son.
- Home: via Trieste 53/C, 50139 Firenze, Italy; tel. 055 2345614.
- Office: Department of Statistics "P. Fortunati", via delle Belle Arti 41, 40126 Bologna, Italy.
- email: pietro.rigo@unibo.it
- Web: `https://www.unibo.it/sitoweb/pietro.rigo/`

Education

- Degree in Statistics (Laurea in Scienze Statistiche ed Economiche), University of Siena, in 1982. Mark: summa cum laude (110/110 e lode). Supervisor: prof. Lorenzo Fattorini.
- PhD in Statistics (Dottorato di Ricerca in Statistica), University of Padova, in 1989. Supervisor: prof. Antonio Moro.
- Summer schools: (i) Perugia, 1985 (Probability, J. Brooks; Mathematical Statistics, P. Protter); (ii) Cortona, 1989 (Probability, P. Billingsley; Mathematical Statistics, E. Regazzini).
- Visiting: Minneapolis, summer 1994 (School of Statistics, working with A. Maitra and W. Sudderth).

Past and present positions

- Assistant professor in Statistics (ricercatore, S01A), Faculty of Economics, University of Firenze (1989-1992; qualified in 1993).
- Associate professor in Statistics (professore associato, S01A), Faculty of Economics, University of Firenze (1992-2000; qualified in 1997).
- Associate professor in Probability and Mathematical Statistics (A02B), Faculty of Economics, University of Pavia (2000-2001).
- Full professor in Probability and Mathematical Statistics (professore ordinario, MAT/06), Department of Mathematics, University of Pavia (2001-2019; qualified in 2004; from 2001 to 2010 at the Department of Economics).
- Full professor in Probability and Mathematical Statistics, Department of Statistics, University of Bologna (from 2019).

Miscellanea

- Organizer (with others) of the following meetings: "Alcuni argomenti di Probabilità, Statistica e Teoria della Misura" Modena, june 2015; "Advances in Statistics, Probability and Mathematical Physics" Pavia, june 2016; "The Mathematics of Subjective Probability" Milano, september 2018, september 2021 and september 2023; "Third Italian Meeting on Probability and Mathematical Statistics" Bologna, June 2022.
- Member of several national research groups on Probability and Mathematical Statistics. In a few cases, local coordinator (for Firenze or Pavia) of such groups.
- Member of the board (Collegio Docenti) of the following PhD's (Dottorati di Ricerca): Statistica Applicata (University of Firenze, 1994-1997); Matematica e Statistica (University of Pavia, 1998-2016); Matematica (Universities of Pavia and Milano "bicocca" and INDAM, 2017-2020); Scienze Statistiche (University of Bologna, from 2021).
- Member of the UMI.

Editorial activity

- Associate Editor of *Statistical Methods and Applications*, 2005-2009.
- Co-Editor of *Statistica* from 2023.
- Guest Editor of the following special issues: "The Mathematics of Subjective Probability", *Decisions in Economics and Finance*, 2018-2019 and 2023-2024; "Contemporary Bayesian Prediction", *Statistical Science*, 2022-2024.

Teaching

- **Academic courses**
  (a) Practical Exercises (Esercitazioni) to the courses of **Calcolo delle Probabilità** and **Statistica I** (1989/90, 1990/91, 1991/92) Faculty of Economics, University of Firenze.
  (b) **Istituzioni di Statistica** (1992/93, 1993/94, 1994/95) degree in Scienze Statistiche ed Attuariali, Faculty of Economics, University of Firenze.
  (c) **Processi Stocastici** (1992/93, 1993/94, 1994/95) degree in Scienze Statistiche ed Attuariali, Faculty of Economics, University of Firenze.
  (d) **Calcolo delle Probabilità e Statistica** (1993/94, 1994/95, 1995/96) degree in Scienze dell'Informazione, Faculty of Science (SMFN), University of Firenze.
  (e) **Calcolo delle Probabilità** (from 1995/96 to 1999/2000) degrees in Scienze Statistiche ed Attuariali and Scienze Statistiche ed Economiche, Faculty of Economics, University of Firenze.
  (f) **Statistica II** (from 1995/96 to 1999/2000) degrees in Scienze Statistiche ed Attuariali and Scienze Statistiche ed Economiche, Faculty of Economics, University of Firenze.
  (g) **Probabilità** (ex **Calcolo delle Probabilità**, from 2000/01 to 2008/09) Faculty of Economics, University of Pavia.
  (h) **Processi Stocastici** (from 2002/03 to 2007/08) Faculty of Economics, University of Pavia.
  (i) **Statistica Base** (ex **Statistica II**, from 1999/2000 to 2003/04 and from 2006/07 to 2008/09) Faculty of Economics, University of Pavia.

(j) **Statistica Istituzioni** (ex **Statistica I**, from 2002/03 to 2005/06 and 2008/09) Faculty of Economics, University of Pavia.

(k) **Probabilità e Processi Stocastici** (oppure: Probability and Stochastic Processes; union of the previous two courses: **1. Probabilità, 2. Processi Stocastici**; 2009/2010, 2010/2011 and 2013/2014, 2014/2015, 2015/2016) Faculty of Economics, University of Pavia.

(l) **Statistica** (union of the previous two courses: **1. Analisi dei dati, 2. Statistica Istituzioni**; from 2009/2010 to 2011/2012) Faculty of Economics, University of Pavia.

(m) **Statistical Methods (oppure: Statistical Methods and Models for Finance)** (2011/2012, 2012/2013) Faculty of Economics, University of Pavia.

(n) **Finanza Matematica** (2001/02, 2002/03, 2004/05, 2006/07, 2008/09) degree in Mathematics (Laurea Specialistica) University of Pavia.

(o) **Teoria delle Probabilità** (2003/04, 2005/06, 2007/08) degree in Mathematics (Laurea Specialistica) University of Pavia.

(p) **Processi Stocastici** (from 2009/2010 to 2014/2015 and from 2016/2017 to 2017/2018) degree in Mathematics (Laurea Magistrale) University of Pavia.

(q) **Elementi di Matematica e Statistica** (2014/2015) degree in Scienze e Tecnologie per la Natura, University of Pavia.

(r) **Probabilità** (2015/2016, 2017/2018, 2018/2019 and 2019/2020) degree in Mathematics (Laurea Magistrale) University of Pavia.

(s) **Complementi di Analisi Matematica e Statistica** (2015/2016 and 2016/2017) degree in Industrial Engineering, Faculty of Engineering, University of Pavia.

(t) **Probabilità e Statistica** (2017/2018) degree in Economics (Laurea Triennale) Faculty of Economics, University of Pavia.

(u) **Matematica e Statistica** (2018/2019) degree in Biotechnology, University of Pavia.

(v) **Elementi di Probabilità** (2019/2020) degree in Mathematics (Laurea Triennale) University of Pavia.

(w) **Stochastic Processes** (from 2019/2020 to 2022/2023) degree in Statistical Sciences (Laurea Magistrale) University of Bologna.

(x) **Advanced Probability** (from 2020/2021 to 2022/2023) degree in Statistical Sciences (Laurea Magistrale) University of Bologna.

(y) **Calcolo delle Probabilità** (from 2020/2021 to 2022/2023) degree in Statistics (Laurea Triennale) University of Bologna.

(z) **Algebra Lineare** (from 2020/2021 to 2022/2023) degree in Statistics (Laurea Triennale) University of Bologna.

(z1) **Probability II** (2023/2024) degree in Statistics (Curriculum: Stats and Maths) University of Bologna.

- **PhD courses**

(a) **Probability and Stochastic Processes**, Dottorato in Statistica Applicata, University of Firenze, from 1992 to 1999 and from 2004 to 2008.

(b) **Probability Theory**, Dottorato in Matematica, University of Firenze, in 1995.

(c) **Stochastic Processes**, Dottorato in Statistica, University of Bologna, in 1994, 1995 and 1998.

(d) **Weak convergence of probability measures on metric spaces**, Dottorato in Matematica e Statistica, University of Pavia, in 1999, 2000 and 2012.

(e) **Weak convergence of probability measures and empirical processes**, Inter-Dottorato (Universities of: Pavia, Milano Bicocca, Milano Politecnico, Milano Statale), in 2013, 2016 and 2017.

(f) **Exchangeability and (some of) its applications**, Inter-Dottorato (Universities of: Pavia, Milano Bicocca, Milano Politecnico, Milano Statale), in 2015.

(g) **Probability and Stochastic Processes**, Dottorato in Statistica, University of Bologna, from 2019 to 2024.

- **Summer Schools**

  Perugia, Scuola Matematica Interuniversitaria, august 2004, Mathematical Statistics.

- **Others**

  Collaboration (as a tutor or giving short courses) to some Masters or Specialized Schools (MAPE, SUS) organized by the University of Pavia in 2001 and 2002.

Research

In time, I dealt with various topics (listed below). However, my main research interest is *conditional probability*, regarded both in the standard framework (based on Kolmogorov's axioms) and in the coherent framework (based on de Finetti's notion of coherence). Most problems I worked on can be actually referred, directly or indirectly, to conditional probability. I cooperated with Patrizia Berti and Luca Pratelli (systematically) and with some other coauthors. Among the latter, I recall Eugenio Regazzini who introduced me to some of my current research issues.

1. **Conditional probability.** As remarked above, my research on this subject splits into two classes: (i) Standard conditional probability (based on Kolmogorov's axioms); (ii) Coherent conditional probability (based on de Finetti's coherence principle).

   As to (i), I begin with 0-1 *laws for regular conditional distributions*. Let $(\Omega, \mathcal{A}, P)$ be a probability space, $\mathcal{G} \subset \mathcal{A}$ a sub-σ-field, and Q a regular conditional distribution for P given $\mathcal{G}$. Say that Q satisfies a 0-1 law if there is $A_0 \in \mathcal{G}$ such that

   $$P(A_0) = 1 \quad \text{and} \quad Q(\omega, A) \in \{0, 1\} \qquad \text{for all } A \in \mathcal{G} \text{ and } \omega \in A_0. \tag{1}$$

   Condition (1) plays a role in various settings, including sufficiency and integral representation of invariant measures. In this framework, I proved some 0-1 laws for regular conditional distributions. They apply, in particular, if $\mathcal{G}$ is a tail σ-field or a symmetric σ-field; see [56], [52]. Another problem I worked on is *compatibility* of conditional distributions. Let $\mathcal{G}_i \subset \mathcal{A}$ be a sub-σ-field and $Q_i = \{Q_i(\omega, \cdot) : \omega \in \Omega\}$ a $\mathcal{G}_i$-measurable collection of probability measures on $\mathcal{A}$, where i ranges over some index set I. The kernels Q_i are compatible if there is a single probability measure P^* on $\mathcal{A}$ such that Q_i is a regular conditional distribution for P^* given $\mathcal{G}_i$ for each $i \in I$. Compatibility issues arise, for instance, in spatial statistics, Gibbs sampling and statistical mechanics. My contributions here are a few sufficient conditions for compatibility; see [43], [36], [27]. A third issue I dealt with is the *asymptotic behavior of predictive distributions*. Let (X_n) be a sequence of random variables adapted to a filtration $(\mathcal{F}_n)$. Define the empirical measure $\mu_n = (1/n) \sum_{i=1}^n \delta_{X_i}$ and the predictive measure $a_n(\cdot) = P(X_{n+1} \in \cdot \mid \mathcal{F}_n)$. I investigated the asymptotics of

   $$\|\mu_n - a_n\|_{\mathcal{D}} = \sup_{B \in \mathcal{D}} |\mu_n(B) - a_n(B)|,$$

   as $n \to \infty$, for various classes $\mathcal{D}$ of measurable sets. The sequence (X_n) has been assumed to be exchangeable or conditionally identically distributed. In a few cases, I also evaluate the rate of convergence of $\|\mu_n - a_n\|_{\mathcal{D}}$. See [62], [51], [45], [40], [25].

As to (ii), the main result is a *coherence criterion* for a real function on a class of conditional events; see [102]. Let $P : \mathcal{F} \times \mathcal{H} \to \mathbb{R}$, where $\mathcal{F}$ is a field and $\mathcal{H} \subset \mathcal{F} \setminus \{\emptyset\}$. For each $B \in \mathcal{H}$, suppose that $P(\cdot \mid B)$ is a finitely additive probability (f.a.p.) on $\mathcal{F}$ such that $P(B \mid B) = 1$. Then, P is coherent if and only if

$$\prod_{i=1}^{n} P(A_i \cap B_i \mid B_{i+1}) = \prod_{i=1}^{n} P(A_i \cap B_{i+1} \mid B_i)$$

for all $n \in \mathbb{N}$, $A_1, \ldots, A_n \in \mathcal{F}$ and $B_1, \ldots, B_n \in \mathcal{H}$, where $B_{n+1} := B_1$. Usually, it is not hard to check the above condition in real problems. Hence, the coherence criterion has been successfuly applied to Bayesian statistical inference; see [81], [78], [76], [74].

Finally, I mention *disintegrability*, possibly my favorite topic. Among other things, disintegrability can be regarded as a bridge between (i) and (ii). Let P be a f.a.p. on a field $\mathcal{F}$ and let $\Pi \subset \mathcal{F}$ be a partition of Ω. Then, P is disintegrable on Π if

$$P(A) = \int_{\Pi} \alpha(A \mid H)\, \beta(dH) \qquad \text{for all } A \in \mathcal{F},$$

where $\alpha(\cdot \mid H)$ is a f.a.p. on $\mathcal{F}$ satisfying $\alpha(H \mid H) = 1$, for each $H \in \Pi$, and β is a f.a.p. on the power set of Π. In addition, if P is σ-additive, it is quite natural to ask α and β to be σ-additive (I skip formal definitions to avoid technicalities). In this case, the pair (α, β) is said to be a σ-additive disintegration for P. My contributions are sufficient conditions for P to admit a disintegration, possibly σ-additive. Once again, such conditions apply to statistical inference; see [76], [72], [65], [18].

2. **Limit theorems.** I worked on limit theorems a lot. Among other things, I investigated stable convergence, empirical and predictive measures (already quoted in (1)) and CLT's for Gaussian functionals and urn schemes. See [48], [46], [34], [22]. I was also concerned with the Skorohod representation theorem. Let $(\mu_n : n \geq 0)$ be a sequence of Borel probability measures on a metric space S. If $\mu_n \to \mu_0$ weakly and μ_0 is separable then, on a suitable probability space, there are S-valued random variables X_n such that $X_n \sim \mu_n$ for all $n \geq 0$ and $X_n \xrightarrow{a.s.} X_0$. Here, I tried to remove, or at least to bypass, the separability assumption on μ_0. To this end, the assumption $\mu_n \to \mu_0$ weakly should be replaced by

$$\lim_n \sup_f \left| \int f \, d\mu_n - \int f \, d\mu_0 \right| = 0, \tag{2}$$

where sup is over the 1-Lipschitz functions $f : S \to [-1, 1]$. Condition (2) is necessary for the conclusion of Skorohod representation theorem. My conjecture is that (2) is sufficient as well, possibly under some additional assumptions. So far, however, I was able to prove such conjecture only in a few special cases. See [50], [47], [42].

3. **Finitely additive probabilities.** In a sense, f.a.p.'s are a recurrent state of my research, and I faced with them a number of times. Obviously, f.a.p.'s are involved in my study of coherent conditional probabilities, mentioned at point (1). But I also met f.a.p.'s in other settings. I mention the Radon-Nikodym theorem, the integral representation of linear positive functionals, and coherence for unbounded random variables; see [79], [69], [68]. Also, I investigated the existence of finitely additive extensions which satisfy some special property; [44], [35], [33]. And, recently, I studied finitely additive equivalent martingale measures; see [41], [37], [32].

4. **Exchangeability and other dependence forms.** As regards exchangeability, the main results concern the asymptotics of predictive distributions (mentioned at point (1)) and

the characterization of those sequences of random variables which are mixture of absolutely continuous i.i.d. sequences; see [75], [51], [40], [25]. In addition, in [62], a related notion of dependence has been introduced. Let (X_n) be a sequence of random variables adapted to a filtration $(\mathcal{F}_n)$. Then, (X_n) is *conditionally identically distributed* (c.i.d.) if

$$P\big(X_k \in \cdot \mid \mathcal{F}_n\big) = P\big(X_{n+1} \in \cdot \mid \mathcal{F}_n\big) \qquad \text{a.s. for each } k > n \geq 0.$$

Roughly speaking this means that, at each time $n \geq 0$, the future observations $(X_k : k > n)$ are identically distributed given the past $\mathcal{F}_n$. Take $\mathcal{F}_n = \sigma(X_1, \ldots, X_n)$ and $\mathcal{F}_0$ the trivial σ-field. Then, conditional identity in distribution is strictly weaker than exchangeability. Indeed, (X_n) is exchangeable if and only if is stationary and c.i.d. To motivate c.i.d. sequences, I just mention three facts. Firstly, c.i.d. sequences have an asymptotic behavior quite similar to that of exchangeable ones. Secondly, c.i.d. sequences are useful in Bayesian nonparametrics. Thirdly, when making predictive inference, a number of meaningful predictive distributions can not be used if the data are exchangeable, but are available if the data are c.i.d.

5. **Bayesian statistical inference and Gibbs sampling.** Until the end of the nineties, a big part of my research was to investigate Bayesian statistical problems from the point of view of coherence. Roughly speaking, the underlying idea was to regard all the ingredients of the problem (the likelihood, the prior, the posterior, ...) as parts of a single coherent conditional probability; see [81], [78], [76], [74]. In this framework, I also investigated improper priors and a few disintegrability issues. Some years later, following an hint by Persi Diaconis, I investigated Gibbs sampling and iterated conditional expectations. The main results are a SLLN for Markov chains and some conditions for the atomicity of certain probability measures; see [53], [49].

6. **Miscellanea.** It also happened that I worked on some topics without investigating them systematically. I mention duality theory in mass transportation, stochastic dependence, knockoffs, and descriptive statistics. See [20], [3], [82], [77], [35], [33], [29], [23], [7], [2], [8].

Finally, I try to group my papers according to the subject. This is not a partition, however, since some papers appear in more than one class.

- **Disintegrability, regular conditional distributions, compatibility, Skorohod representation theorem**

  [80], [73], [78], [76], [72], [65], [55], [56], [52], [50], [47], [42], [100], [101], [99], [95], [88], [89], [43], [36], [35], [31], [29], [26], [27], [18], [19], [21], [5], [111], [109].

- **Coherence for conditional probabilities, finitely additive probability measures, integral representation of functionals**

  [80], [68], [81], [79], [78], [74], [69], [65], [61], [58], [59], [57], [41], [32], [84], [37], [44], [102], [103], [100], [101], [98], [99], [96], [97], [95], [94], [91], [89], [35], [33], [26], [12], [3].

- **Bayesian inference and Gibbs sampling**

  [80], [71], [81], [78], [76], [74], [72], [70], [53], [54], [51], [28], [83], [49], [48], [105], [103], [100], [98], [96], [95], [94], [93], [91], [88], [85], [86], [46], [30], [43], [36], [25], [27], [15], [11], [16], [18], [19], [10], [9], [6], [17], [110].

- **Empirical processes, predictive distributions, exchangeability, limit theorems**

  [67], [74], [75], [64], [66], [61], [62], [58], [59], [60], [55], [53], [54], [51], [28], [83], [50], [42], [31], [49], [48], [47], [99], [95], [94], [85], [86], [45], [46], [30], [40], [39], [34], [25], [22], [24], [15], [11], [16], [13], [5], [111], [14], [10], [9], [6], [17], [110], [1], [4].

- **Concentration, mass transportation, stochastic dependence, knockoffs, and others**

  [82], [77], [108], [107], [106], [104], [90], [63], [92], [33], [29], [23], [22], [24], [20], [3], [12], [21], [35], [7], [2], [13], [14], [8], [1], [4], [109].

Complete list of publications

Journals

[1] Janson S., Pratelli L., Rigo P. (2024) Quantitative bounds in the central limit theorem for m-dependent random variables, *Alea*, 21, 245-265.

[2] Dreassi E., Leisen F., Pratelli L., Rigo P. (2024) Generating knockoffs via conditional independence, *Electronic Journal of Statistics*, 18, 119-144.

[3] Rigo P. (2023) Finitely additive mass transportation, *Bernoulli*, to appear.

[4] Pratelli L., Rigo P. (2023) A central limit theorem for some generalized martingale arrays, *Electronic Communications in Probability*, 28, 1-12.

[5] Pratelli L., Rigo P. (2023) A strong version of the Skorohod representation theorem, *Journal of Theoretical Probability*, 36, 372-389.

[6] Berti P., Dreassi E., Leisen F., Pratelli L., Rigo P. (2023) A probabilistic view on predictive constructions for Bayesian learning, *Statistical Science*, to appear.

[7] Berti P., Dreassi E., Leisen F., Pratelli L., Rigo P. (2023) New perspectives on knockoffs construction, *Journal of Statistical Planning and Inference*, 223, 1-14.

[8] Barabesi L., Pratelli L., Rigo P. (2023) On the Chvátal-Janson conjecture, *Statistics and Probability Letters*, 194, 1-6.

[9] Berti P., Dreassi E., Leisen F., Pratelli L., Rigo P. (2023) Kernel based Dirichlet sequences, *Bernoulli*, 29, 1321-1342.

[10] Berti P., Dreassi E., Leisen F., Pratelli L., Rigo P. (2023) Bayesian predictive inference without a prior, *Statistica Sinica*, 33, 2405-2429.

[11] Rigo P. (2023) Pietro Rigo's contribution to the discussion of 'Martingale posterior distributions' by Fong, Holmes and Walker, *Journal of the Royal Statistical Society B*, 85, 1407-1408.

[12] Berti P., Rigo P. (2021) Finitely additive mixtures of probability measures, *Journal of Mathematical Analysis and Applications*, 500, 1-16.

[13] Pratelli L., Rigo P. (2021) On the almost sure convergence of sums, *Statistics and Probability Letters*, 172, 1-5.

[14] Pratelli L., Rigo P. (2021) Convergence in total variation of random sums, *Mathematics*, Special Issue: "Stochastic Processes in Neuronal Modeling", 9, 194.

[15] Berti P., Dreassi E., Pratelli L., Rigo P. (2021) A class of models for Bayesian predictive inference, *Bernoulli*, 27, 702-726.

[16] Berti P., Dreassi E., Pratelli L., Rigo P. (2021) Asymptotics of certain conditionally identically distributed sequences, *Statistics and Probability Letters*, 168, 1-10.

[17] Berti P., Pratelli L., Rigo P. (2021) A central limit theorem for predictive distributions, *Mathematics*, Special Issue: "Bayesian Predictive Inference and Related Asymptotics", 9, 3211.

[18] Berti P., Dreassi E., Rigo P. (2020) A notion of conditional probability and some of its consequences, *Decisions in Economics and Finance*, 43, 3-15.

[19] Cassese G., Rigo P., Vantaggi B. (2020) Editorial: A special issue on the mathematics of subjective probability, *Decisions in Economics and Finance*, 43, 1-2.

[20] Rigo P. (2020) A note on duality theorems in mass transportation, *Journal of Theoretical Probability*, 33, 2337-2350.

[21] Pratelli L., Rigo P. (2019) On the existence of continuous processes with given one-dimensional distributions, *Electronic Communications in Probability*, 24, 1-9.

[22] Pratelli L., Rigo P. (2019) Total variation bounds for Gaussian functionals, *Stochastic Processes and their Applications*, 129, 2231-2248.

[23] Puccetti G., Rigo P., Wang B., Wang R. (2019) Centers of probability measures without the mean, *Journal of Theoretical Probability*, 32, 1482-1501.

[24] Pratelli L., Rigo P. (2018) Convergence in total variation to a mixture of Gaussian laws, *Mathematics*, Special Issue: "Stochastic Processes with Applications", 6, 99.

[25] Berti P., Pratelli L., Rigo P. (2018) Asymptotic predictive inference with exchangeable data, *Brazilian Journal of Probability and Statistics*, 32, 815-833.

[26] Berti P., Miranda E., Rigo P. (2017) Basic ideas underlying conglomerability and disintegrability, *International Journal of Approximate Reasoning*, 88, 387-400.

[27] Dreassi E., Rigo P. (2017) A note on compatibility of conditional autoregressive models, *Statistics and Probability Letters*, 125, 9-16.

[28] Berti P., Pratelli L., Rigo P. (2017) Rate of convergence of empirical measures for exchangeable sequences, *Mathematica Slovaca*, 67, 1557-1570.

[29] Rigo P., Thorisson H. (2016) Transfer theorems and right-continuous processes, *Theory of Stochastic Processes*, 21, 91-95.

[30] Berti P., Crimaldi I., Pratelli L., Rigo P. (2016) Asymptotics for randomly reinforced urns with random barriers, *Journal of Applied Probability*, 53, 1206-1220.

[31] Berti P., Pratelli L., Rigo P. (2015) A survey on Skorokhod representation theorem without separability, *Theory of Stochastic Processes*, 20, 1-12.

[32] Berti P., Pratelli L., Rigo P. (2015) Two versions of the fundamental theorem of asset pricing, *Electronic Journal of Probability*, 20, 1-21.

[33] Berti P. Pratelli L. Rigo P. Spizzichino F. (2015) Equivalent or absolutely continuous probability measures with given marginals, *Dependence Modeling*, 3, 47-58.

[34] Berti P., Crimaldi I., Pratelli L., Rigo P. (2015) Central limit theorems for an Indian buffet model with random weights, *The Annals of Applied Probability*, 25, 523-547.

[35] Berti P., Pratelli L., Rigo P. (2015) Gluing lemmas and Skorohod representations, *Electronic Communications in Probability*, 20, 1-11.

[36] Berti P., Dreassi E., Rigo P. (2014) Compatibility results for conditional distributions, *Journal of Multivariate Analysis*, 125, 190-203.

[37] Berti P., Pratelli L., Rigo P. (2014) Price uniqueness and fundamental theorem of asset pricing with finitely additive probabilities, *Stochastics: An International Journal of Probability and Stochastic Processes* (ex: *Stochastics and Stochastic Reports*), 86, 135-146.

[38] Berti P., Pratelli L., Rigo P. (2014) A unifying view on some problems in probability and statistics, *Statistical Methods and Applications*, 23, 483-500.

[39] Berti P., Crimaldi I., Pratelli L., Rigo P. (2014) An Anscombe-type theorem, *Journal of Mathematical Sciences*, 196, 15-22.

[40] Berti P., Pratelli L., Rigo P. (2013) Exchangeable sequences driven by an absolutely continuous random measure, *The Annals of Probability*, 41, 2090-2102.

[41] Berti P., Pratelli L., Rigo P. (2013) Finitely additive equivalent martingale measures, *Journal of Theoretical Probability*, 26, 46-57.

[42] Berti P., Pratelli L., Rigo P. (2013) A Skorohod representation theorem without separability, *Electronic Communications in Probability*, 18, 1-12.

[43] Berti P., Dreassi E., Rigo P. (2013) A consistency theorem for regular conditional distributions, *Stochastics: An International Journal of Probability and Stochastic Processes* (ex: *Stochastics and Stochastic Reports*), 85, 500-509.

[44] Berti P., Gori M., Rigo P. (2012) A note on the absurd law of large numbers in economics, *Journal of Mathematical Analysis and Applications*, 388, 98-101.

[45] Berti P., Pratelli L., Rigo P. (2012) Limit theorems for empirical processes based on dependent data, *Electronic Journal of Probability*, 17, 1-18.

[46] Berti P., Crimaldi I., Pratelli L., Rigo P. (2011) A central limit theorem and its applications to multicolor randomly reinforced urns, *Journal of Applied Probability*, 48, 527-546.

[47] Berti P., Pratelli L., Rigo P. (2011) A Skorohod representation theorem for uniform distance, *Probability Theory and Related Fields*, 150, 321-335.

[48] Berti P., Crimaldi I., Pratelli L., Rigo P. (2010) Central limit theorems for multicolor urns with dominated colors, *Stochastic Processes and their Applications*, 120, 1473-1491.

[49] Berti P., Pratelli L., Rigo P. (2010) Atomic intersection of σ-fields and some of its consequences, *Probability Theory and Related Fields*, 148, 269-283.

[50] Berti P., Pratelli L., Rigo P. (2010) Skorohod representation theorem via disintegrations, *Sankhya*, 72, 208-220.

[51] Berti P., Crimaldi I., Pratelli L., Rigo P. (2009) Rate of convergence of predictive distributions for dependent data, *Bernoulli*, 15, 1351-1367.

[52] Berti P., Rigo P. (2008) A conditional 0-1 law for the symmetric σ-field, *Journal of Theoretical Probability*, 21, 517-526.

[53] Berti P., Pratelli L., Rigo P. (2008) Trivial intersection of σ-fields and Gibbs sampling, *The Annals of Probability*, 36, 2215-2234.

[54] Berti P., Consonni G., Pratelli L., Rigo P. (2008) Comment: Gibbs sampling, exponential families and orthogonal polynomials (by P. Diaconis, K. Khare, L. Saloff-Coste), *Statistical Science*, 23, 179-182.

[55] Berti P., Pratelli L., Rigo P. (2007) Skorohod representation on a given probability space, *Probability Theory and Related Fields*, 137, 277-288.

[56] Berti P., Rigo P. (2007) 0-1 laws for regular conditional distributions, *The Annals of Probability*, 35, 649-662.

[57] Berti P., Regazzini E., Rigo P. (2007) Modes of convergence in the coherent framework, *Sankhya*, 69, 314-329.

[58] Berti P., Pratelli L., Rigo P. (2006) Asymptotic behaviour of the empirical process for exchangeable data, *Stochastic Processes and their Applications*, 116, 337-344.

[59] Berti P., Rigo P. (2006) Finitely additive uniform limit theorems, *Sankhya*, 68, 24-44.

[60] Berti P., Pratelli L., Rigo P. (2006) Almost sure weak convergence of random probability measures, *Stochastics: An International Journal of Probability and Stochastic Processes* (ex: *Stochastics and Stochastic Reports*), 78, 91-97.

[61] Berti P., Rigo P. (2004) Convergence in distribution of non measurable random elements, *The Annals of Probability*, 32, 365-379.

[62] Berti P., Pratelli L., Rigo P. (2004) Limit theorems for a class of identically distributed random variables, *The Annals of Probability*, 32, 2029-2052.

[63] Berti P., Regazzini E., Rigo P. (2003) Integration with respect to Brownian-like processes, *Sankhya*, 65, 715-732.

[64] Berti P., Rigo P. (2002) A uniform limit theorem for predictive distributions, *Statistics and Probability Letters*, 56, 113-120. 11-28.

[65] Berti P., Rigo P. (2002) On coherent conditional probabilities and disintegrations, *Annals of Mathematics and Artificial Intelligence*, 35, 71-82.

[66] Berti P., Pratelli L., Rigo P. (2002) Almost sure uniform convergence of empirical distribution functions, *International Mathematical Journal*, 2, 1237-1250.

[67] Berti P., Mattei A., Rigo P. (2002) Uniform convergence of empirical and predictive measures, *Atti del Seminario Matematico e Fisico dell'Università di Modena*, L, 465-477.

[68] Berti P., Regazzini E., Rigo P. (2001) Strong previsions of random elements, *Statistical Methods and Applications* (ex: *Journal of the Italian Statistical Society)*, 10, 11-28.

[69] Berti P., Rigo P. (2000) Integral representation of linear functionals on spaces of unbounded functions, *Proceedings of the American Mathematical Society*, 128, 3251-3258.

[70] Berti P., Fattorini L., Rigo P. (2000) Eliminating nuisance parameters: two characterizations, *Test*, 9, 133-148.

[71] Berti P., Fortini S., Ladelli L., Regazzini E., Rigo P. (2000) On parametric models for invariant probability measures, *Quaderni di Statistica*, vol. 2, 39-57.

[72] Berti P., Rigo P. (1999) Sufficient conditions for the existence of disintegrations, *Journal of Theoretical Probability*, 12, 75-86.

[73] Berti P., Rigo P. (1999) Existence of non measurable disintegrations, *Atti del Seminario Matematico e Fisico dell'Università di Modena*, XLVII, 65-76.

[74] Berti P., Regazzini E., Rigo P. (1997) Well-calibrated, coherent forecasting systems, *Theory of Probability and its Applications*, 42, 82-102.

[75] Berti P., Rigo P. (1997) A Glivenko-Cantelli theorem for exchangeable random variables, *Statistics and Probability Letters*, 32, 385-391.

[76] Berti P., Rigo P. (1996) On the existence of inferences which are consistent with a given model, *The Annals of Statistics*, 24, 1235-1249.

[77] Berti P., Rigo P. (1995) A note on Zenga concentration index, *Journal of the Italian Statistical Society*, 4, 397-404.

[78] Berti P., Rigo P. (1994) Coherent inferences and improper priors, *The Annals of Statistics*, 22, 1177-1194.

[79] Berti P., Regazzini E., Rigo P. (1992) Finitely additive Radon-Nikodym theorem and concentration function of a probability with respect to a probability, *Proceedings of the American Mathematical Society*, 114, 1069-1078.

[80] Berti P., Rigo P. (1992) Weak disintegrability as a form of preservation of coherence, *Journal of the Italian Statistical Society*, 1, 161-181.

[81] Berti P., Regazzini E., Rigo P. (1991) Coherent statistical inference and Bayes theorem, *The Annals of Statistics*, 19, 366-381.

[82] Rigo P. (1987) Two inequalities for the Gini index, *Statistica*, XLVII, n. 4, 531-541.

Proceedings, Monographs, Encyclopedia-items

[83] Berti P., Pratelli L., Rigo P. (2017) Asymptotics of predictive distributions, *Soft Methods for Data Science, Advances in Intelligence Systems and Computing 456 (Ferraro M.B. et al. Eds.)* SMPS 2016, Roma, 53-60, Springer.

[84] Berti P., Pratelli L., Rigo P. (2012) Finitely additive FTAP under an atomic reference measure, *Advances in Computational Intelligence (Greco S. et al. Eds.)* IPMU 2012, Catania, 114-123, Springer.

[85] Berti P., Rigo P. (2003) Bayesian nonparametrics for invariant, non-exchangeable data, *Invited Papers of the 54th Session of the I.S.I.*, Berlino, 106-109.

[86] Berti P., Rigo P. (2003) Some results on Bayesian nonparametrics for invariant data, *Giornate Scientifiche in ricordo di Antonio C. Capelo*, Padova gennaio 2003, CLEUP, 21-29.

[87] Berti P., Rigo P. (2002) Convergence in distribution of non measurable random elements, *Atti della XLI Riunione Scientifica della S.I.S.*, Milano, 463-466.

[88] Berti P., Rigo P. (2000) On sufficiency and disintegrations, *Atti della XL Riunione Scientifica della S.I.S.*, Firenze, 479-482.

[89] Berti P., Rigo P. (2000) Alcuni usi dell'additività finita in probabilità, *Riunione del Progetto Nazionale 40% "Analisi Reale"*, Trieste, Giugno 2000.

[90] Berti P., Rigo P. (1999) Zenga concentration curve and index, *Encyclopedia of Statistical Sciences, Update Volume 3* (Kotz, Read, Banks Editors), Wiley-Interscience, 101-104.

[91] Berti P., Rigo P. (1999) Coherence II (Update), *Encyclopedia of Statistical Sciences, Update Volume 3* (Kotz, Read, Banks Editors), Wiley-Interscience, 93-96.

[92] Berti P., Regazzini E., Rigo P. (1996) Brownian-like processes and related stochastic calculus: some preliminary results, *Working papers n. 66*, Dipartimento Statistico, Università di Firenze.

[93] Berti P., Petrone S., Rigo P. (1994) Su alcune classi complete di funzioni di decisione, *Atti della XXXVII Riunione Scientifica della S.I.S.*, San Remo, 483-489.

[94] Berti P., Rigo P. (1993) Coherent predictive inferences, *Invited Papers of the 49th Session of the I.S.I.*, Firenze, 15-32.

[95] Berti P., Regazzini E., Rigo P. (1992) Inferenze predittive strategiche, *Atti della XXXVI Riunione Scientifica della S.I.S.*, Pescara, 51-58.

[96] Berti P., Rigo P. (1991) Probabilità ed inferenze statistiche coerenti, *Atti del convegno "L'inferenza statistica pura"*, Bagni di Lucca, Luglio 1990, Pubblicazione del Dipartimento Statistico dell'Università di Firenze, 63-77.

[97] Berti P., Rigo P. (1991) Qualche commento su "il problema dei tre carcerati", *Atti del convegno "L'inferenza statistica pura"*, Bagni di Lucca, Luglio 1990, Pubblicazione del Dipartimento Statistico dell'Università di Firenze, 108-109.

[98] Berti P., Rigo P. (1990) Alcune osservazioni circa la rappresentazione delle conoscenze iniziali, *Atti della XXXV Riunione Scientifica della S.I.S.*, Padova, 411-417.

[99] Berti P., Regazzini E., Rigo P. (1990) de Finetti's coherence and complete predictive inferences, *Quaderno I.A.M.I. n. 5*, Milano.

[100] Rigo P. (1989) Probabilità condizionali finitamente additive ed inferenza statistica, *Tesi di Dottorato di Ricerca*, Università di Padova.

[101] Berti P., Rigo P. (1989) Conglomerabilità, disintegrabilità e coerenza, *Serie Ricerche Teoriche n. 11*, Dipartimento Statistico, Università di Firenze.

[102] Rigo P. (1988) Un teorema di estensione per probabilità condizionate finitamente additive, *Atti della XXXIV Riunione Scientifica della S.I.S.*, Siena, 27-34.

[103] Rigo P. (1988) Qualitative probabilities, pseudodensities and improper priors, *Quaderni del Dipartimento Statistico n. 29*, Università di Firenze.

[104] Ferrari G., Rigo P. (1987) Sulla scomposizione del rapporto di concentrazione di Gini, *Atti del convegno "La distribuzione personale del reddito: problemi di formazione, di ripartizione e di misurazione"*, Brescia giugno 1985, Edizioni Vita e Pensiero, 347-363.

[105] Rigo P. (1987) Fuzzy sets and vague prior information in statistical inference, *Contributed Papers of the 46th Session of the I.S.I.*, Tokyo, 369-370.

[106] Grassini L., Rigo P. (1986) Alcuni aspetti formali delle misure di variabilità e di concentrazione, *Atti della XXXIII Riunione Scientifica della S.I.S.*, Bari, 353-361.

[107] Rigo P. (1985) Lower and upper distribution free bounds for Gini's concentration ratio, *Contributed Papers of the 45th Session of the I.S.I.*, Amsterdam, 629-630.

[108] Rigo P. (1983) Sulle stime lineari dei parametri di una distribuzione rettangolare in presenza di una osservazione anomala, *Quaderni dell'Istituto di Statistica n. 53*, Università di Siena.

Submitted

[109] Pratelli L., Rigo P. (2023) Some duality results for equivalence couplings and total variation.

[110] Garelli S., Leisen F., Pratelli L., Rigo P. (2024) Asymptotics of predictive distributions driven by sample means and variances.

[111] Pratelli L., Rigo P. (2024) Some Skorohod-type results.