

Europass Curriculum Vitae

Updated
July 22, 2019

Personal information

Surname / First name

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Skype

Nationality

Work experience

Occupation or position held

1988-1990: Grantee CEDUIC (Center of Data Elaboration of Italian University for Foreigners). 1991-1998: Researcher at Università di Perugia. 1998 - :Associate professor of Analisi Matematica (MAT05) Università degli Studi di Perugia

Main activities and responsibilities

2002–2004: member of the “Giunta del Dipartimento di Matematica ed Informatica”. 2004 - 2010: member of the Commission “laboratorio del Dipartimento di Matematica ed Informatica”. 2010 - 2011: member of the Commission “ Area Scientifico Disciplinare 01”.

Type of business or sector

Education, Research

Education and training

1986

honors degree (laurea) in Mathematics with a thesis entitled: "Restrizioni numerabilmente additive di misure finitamente additive".

1986

winner of a grant CNR-INdAM.

Name and type of organization providing education and training

University of Perugia

Academic appointments

Dates [1998 -]

Associate Professor at University of Perugia, Italy, Department of Mathematics and Compute Sciences.

Professional and scientific appointments

2014

winner of the 2014 JMAA Ames Awards <http://www.journals.elsevier.com/journal-of-mathematical-analysis-and-applications/news/> .

2018

Achieved scientific qualification as full professor - sector 01 / A3 - Mathematical Analysis, Probability and Mathematical Statistics, valid from 07/27/2018 to 07/27/2024.

Research areas

The scientific results achieved are in the following sectors: Nikodym Radon Theorems, Multivalued Integration, Monotone Vector Integration, Abstract integration in Riesz and Banach spaces, Inequalities in spaces with mixed norms, Vitali theorem and applications.

Personal skills and competences

Mother tongue

Other language(s)

*Self-assessment
European level^(*)*

**Language
Language**

Italian

English, French

Understanding		Speaking		Writing
Listening	Reading	Spoken interaction	Spoken production	
A2	B1	A2	A2	A2
A1	A2	A1	A2	A2

^(*) Common European Framework of Reference (CEF) level

Social skills and competences

Founding member of the "Centro Studi Interfacoltà Lamberto Cesari", member of the Unione Matematica Italiana and member of GNAMPA (INdAM).

2008

Member of the organization committee of the congress "Conferenze scientifiche di Analisi Matematica", Omaggio a Calogero Vinti, Dipartimento di Matematica e Informatica, Università degli Studi di Perugia, December 13, 2008.

2008

Volume co-editor "Calogero Vinti: Opere Scelte" -Università degli Studi di Perugia, Aracne Editore, 2008.

2016

Member of the organization committee of the "INdAM day" - Perugia 8 June 2016.

Organisational skills and competences

She is a member of the following projects admitted to financing:

- Progetti Fondazione Cassa di Risparmio di Perugia 2008-2009-2010
- Progetto Fondazione Cassa di Risparmio Perugia "Algoritmi matematici per il miglioramento di immagini acustiche ottenute da sorgenti industriali con tecnica beamforming" 2017
- Grant prot. U2014/000237 of GNAMPA - INDAM (Italy); Grant prot. U2016/000807 of GNAMPA - INDAM (Italy);
- Grant prot. UFMBAZ2017/0000326 of GNAMPA - INDAM (Italy) "Sistemi dinamici, Teoria del controllo e applicazioni" ; Grant prot. U-UFMBAZ-2018-000350 of GNAMPA - INDAM (Italy) "Dinamiche non autonome, analisi reale e applicazioni".

Technical skills and competences

Referee for Zentralblatt and other scientific journals with international editorial board: among them Journal of Mathematical Analysis and Applications, Real Analysis Exchange, Journal of Convex Analysis, The Royal Society of Edinburgh Proceeding A (Mathematics), Zeitschrift für Analysis ihre Anwendungen (J. for Analysis and its Applications), Mathematica Slovaca, Ricerche di Matematica, Information Sciences, Soft Computing, Indian Journal of Mathematics, Mathematica Bohemica and others (Publons)

Computer skills and competences

Basic: HTML; Intermediate: Linux, Microsoft Windows, OpenOffice, Maple; Advanced: L^AT_EX.

Other skills and competences

He has been a member of competition commissions for: 1) for researcher in the scientific disciplinary sector MAT05 (Faculty of Engineering of the University of Naples "Parthenope") (2007); 2) member of the Ph.D. Commission in Mathematics (University of Palermo) (2014); 3) member of the commission for confirmation in the role of associate professor, S.S.D. Mat / 05 (2015). 4) External member for doctoral thesis in Mathematics - University of the Witwatersrand - Johannesburg (South Africa). Appointment Date February 23, 2017.

Additional information

MathScinet

54 articles (188 citations by 55 authors), h-index 8.

SCOPUS

275 citations, h-index 10.

WOS

140 citations h-index 7.

Research projects and collaborations

She is a member of a research group that deals with Real Analysis, Measure Theory and its applications. She has held numerous communications at national and international congresses and conferences. She collaborates or has collaborated with mathematicians from: Utrecht (NL), Moscow (RU), Bratislava (SL), Wroclaw (PL), Johannesburg (South Africa), Iasi (RM).

Prin 1997

Analisi Reale ed applicazioni alla Teoria della Misura, alla Teoria dell'Approssimazione e alle Equazioni Differenziali

Prin 1999

Metodi e problemi in Analisi Reale

Prin 2002

Analisi Reale e Teoria della Misura

Prin 2004

Analisi Reale e Teoria della Misura

Prin 2010-2011

DESCARTES - Development of Energy-targeted Self-assembled supramolecular systems: a Convergent Approach through Resonant information Transfer between Experiments and Simulations

Research visits¹

She has spent invited research periods at the following foreign universities: Montpellier (France) september 1994, University of York (UK) march 2001, Poznan (PL) march 2018.

Invited talks

5/5/2000

Confronto tra gli integrali di Aumann e di Debreu in ambito finitamente additivo, Naples - Federico II.

3/1/2001

Multivalued integrations and applications, York (UK).

3/14/2014

Vitali-type theorems for filter convergence related to vector lattice-valued modulars and applications to stochastic processes, Palermo

1/25/2016

Gauge integrals and selections of weakly compact valued multifunctions, Udine.

3/2/2018

Multivalued gauge integrals and selections, Poznan (PL).

Scientific and editorial activity

Member of the Editorial Board of Australian Journal of Mathematical Analysis and Application and of Open Mathematics.

¹At least one week

Teaching activity

Academics Years: since 1998 - today

She currently holds positions at the University of Perugia, and is the responsible of the following courses: Mathematical Analysis II for the degree course in Civil Engineering (6 CFU), Analysis for Mathematics II for the degree course in Mechanical Engineering (6 CFU), Mathematics II for the degree course in Chemistry (6 CFU).

Publications

- A. Martellotti, A. R. Sambucini, A Radon-Nikodym theorem for a pair of Banach-valued finitely additive measures, *Rend. Ist. Mat. di Trieste*, 20 (2) (1988), pp. 331-343.
- A. Martellotti, A. R. Sambucini, Riesz spaces valued submeasures and application to group-valued finitely additive measures, *Le Matematiche*, Volume 42 (1-2), 37-48 (1989).
- A. Martellotti, A. R. Sambucini, Closure of the Range and Radon-Nikodym Theorems for Vector Finitely Additive Measures with Respect to Different Types of Integration, *Atti Sem. Mat. Fis. Univ. Modena*, XLII, (1994) pp. 343-356.
- A. Martellotti, A. R. Sambucini, A Radon-Nikodym theorem for multimeasures, *Atti Sem. Mat. Fis. Univ. Modena* XLII, (1994) pp. 579-599.
- A. Martellotti, K. Musiał, A. R. Sambucini, A Radon-Nikodym theorem for the Bartle-Dunford-Schwartz Integral with respect to Finitely Additive Measures, *Atti Sem. Mat. Fis. Univ. Modena*, XLII, (1994) pp. 625-633.
- A. R. Sambucini, Integrazione per seminorme in spazi localmente convessi, *Rivista di Matematica Univ. Parma* 5, 3 (1994), pp. 371-381.
- A. R. Sambucini, Un teorema di Radon-Nikodym in spazi localmente convessi rispetto all'integrazione per seminorme, *Rivista di Matematica, Univ. Parma*, (5) 4, (1995), 49-60.
- A. Boccuto, A. R. Sambucini, On the De Giorgi-Letta integral with respect to means with values in Riesz spaces, *Real Analysis Exchange* 21 (2) 1995/96 pp. 793-810.
- A. Boccuto, A. R. Sambucini, The Burkil-Cesari integral for Riesz-spaces, *Rendiconti Ist. Mat. di Trieste*, 28 (1996), 33-47.
- A. Boccuto, A. R. Sambucini, The monotone integral with respect to Riesz-space valued capacities, *Rendiconti di Matematica Serie VII*, Vol. 16, Roma (1996), 491-524.
- A. Boccuto, A. R. Sambucini, Comparison between different types of abstract integral in Riesz spaces, *Circolo Matematico di Palermo, Serie II, Tomo XLVI* (1997), 255-278. Addendum to: Comparison between different types of abstract integrals in Riesz Spaces, *Rendiconti del Circolo Matematico di Palermo* May 2000, Volume 49, Issue 2, pp 395-396
- A. Boccuto, A. R. Sambucini, Abstract integration in convergence groups, *Atti Sem. Mat. Fis. Univ. Modena*, XLVI, (1998), 315-333.
- M. C. Isidori, A. Martellotti, A. R. Sambucini, The Monotone integral, *Atti Sem. Mat. Fis. Univ. Modena*, suppl. Vol XLVI (1998), 803-825.
- M. C. Isidori, A. Martellotti, A. R. Sambucini, Integration with respect to orthogonally scattered measures, *Matematica Slovaca*, 48 (1998), N. 3, 253-269.
- M. C. Isidori, A. Martellotti, A. R. Sambucini, The Bochner and the monotone integrals with respect to a nuclear finitely additive measure, *Matematica Slovaca*, 48, N. 4 (1998), 377-390.

- M. C. Isidori, A. R. Sambucini, The monotone integral- part II, *Atti Sem. Mat. Fis. Univ Modena*, XLVI, (1998), 469-478.
- A. R. Sambucini, Remarks on set valued integrals of multifunctions with non empty, bounded, closed and convex values, *Commentationes Math. XXXIX*, (1999), 153-165.
- A. Martellotti, A. R. Sambucini, On the comparison between Aumann and Bochner integral, *Journal of Mathematical Analysis and Applications* 260 N. 1 (2001), 6-17.
- A. R. Sambucini, Un problema proposto da Bernoulli: la brachistocrona, *Periodico di Matematiche Serie VIII Vol 1, Numero 2 Aprile-Giugno 2001*, 5-14.
- A. R. Sambucini, A survey on multivalued integration, *Atti Sem. Mat. Fis. Univ. Modena*, L (2002) 53-63.
- A. Martellotti, A. R. Sambucini, The finitely additive integral of multifunctions with closed and convex values, *Zeitschrift für Analysis ihre Anwendungen (J. for Analysis and its Applications) Volume 21 (2002) n. 4*, 851-864.
- A. Boccuto, A. V. Bukhvalov, A. R. Sambucini, Inequalities in Classical Spaces with Mixed , *Positivity* 6, (2002) 393-411.
- A. Martellotti, A.R. Sambucini, Multivalued integral of non convex integrands, *International Journal of Pure and Applied Mathematics* 5, N. 1, (2003) 11-28.
- E. J. Balder, A.R. Sambucini, A note on strong convergence for Pettis integrable function, *Vietnam Journal of Mathematics*, 31, N. 3 (2003), 341-347.
- E. J. Balder, A.R. Sambucini, On weak compactness and lower closure results for Pettis integrable (multi)functions, *Bull. Pol. Acad. Sci.* 52 , N. 1 (2004), 53-61.
- A. Boccuto, A. R. Sambucini, The Henstock-Kurzweil integral for functions defined on unbounded intervals and with values in Banach spaces. *Acta Mathematica (NITRA)*7, (2004) 3-17.
- A. Boccuto, A.R. Sambucini, A McShane integral for multifunctions, *J. of Concrete and Applicable Mathematics*, 2, N. 4 , 307-325 (2004).
- E. J. Balder, A.R. Sambucini, Fatou's Lemma for unbounded multifunctions with values in a dual space, *Journal of Convex Analysis* 12 (2005), No. 2, 383-395.
- A. Martellotti, A.R. Sambucini, A note on a Liapounov-like theorem for some finitely additive measures and applications, *J. of Concrete and Applicable Mathematics*, 3, N. 4, 481-499, (2005).
- A. Boccuto, A.R. Sambucini, V.A. Skvortsov, Integration by parts for Perron type integrals of order 1 and 2 in Riesz spaces, *Results in Mathematics*, Vol. 51 (2007), 5-27. Erratum to: Integration by parts for Perron Type Integrals of order 1 and 2 in Riesz Spaces. DOI : 10.1007/s00025-010-0023-7, *Results in Mathematics* 57 (3-4), (2010), 393-396.
- A. Boccuto, D. Candeloro, A. R. Sambucini, Stieltjes-type integrals for metric semigroup-valued functions defined on unbounded intervals, *PanAmerican Mathematical Journal*, Vol. 17 n. 4, 39-58 (2007).
- A. Boccuto, B. Riecan, A. R. Sambucini, Some properties of an improper GH_k integral in Riesz spaces, *Indian Journal of Mathematics (IJM) - special issue for the golden Jubilee (vol. 50, 2008)*, 21-51.
- C. Donnini, A. Martellotti, A. R. Sambucini, Core and Walras equilibria in the subadditive economies, preprint N. 3, (2008).
- A. Boccuto, B. Riecan, A. R. Sambucini, On the product of M-measures in l-groups, *Australian J. Math.*, 6 (2), (2009), 1-8.

- A. Boccuto, B. Riecan, A. R. Sambucini, Convergence and Fubini Theorems for metric semigroup-valued functions defined on unbounded rectangles, *PanAmerican Math. J.* 19 (1), (2009), 1-12.
- A. Boccuto, A. R. Sambucini, V. A. Skvortsov, The Perron Integral of order Two in Riesz Spaces via Peano Derivatives, *Comunic. Appl. Nonlinear Anal.* 16 (2009), 45-59.
- A. Boccuto, D. Caneloro, A. R. Sambucini, A Fubini Theorem in Riesz Spaces for the Kurzweil-Henstock Integral, *Journal of Function Spaces and Applications*, Volume 9, No. 3 (2011), 283–304. doi:10.1155/2011/158412
- A. Boccuto, A.R. Sambucini, A note on comparison between Birkhoff and McShane-type integrals for multifunctions, *Real Analysis Exchange* Vol. 37(2), 2011/2012, pp. 315-324. DOI: 10.14321/realanalexch.37.2.0315 Stable URL: <http://www.jstor.org/stable/10.14321/realanalexch.37.2.0315>
- A. Boccuto, A.M. Minotti, A.R. Sambucini, Set-valued Kurzweil-Henstock integral in Riesz space setting, *PanAmerican Mathematical Journal*, vol.23 (1) (2013), pp.57–74.
- A. Boccuto, D. Caneloro, A. R. Sambucini, Vitali-type theorems for filter convergence related to Riesz space-valued modulars and applications to stochastic processes, *J.M.A.A.* vol 419 (2), 15 nov 2014, 818-838.
- D. Caneloro, A. R. Sambucini, Order-type Henstock and Mc Shane integrals in Banach lattices setting, arXiv:1401.7818 [math.FA], Sisy 20014- IEEE 12th International Symposium on Intelligent Systems and Informatics, Subotica - Serbia; 09/2014.
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- D. Caneloro, A.R. Sambucini, Comparison between some norm and order gauge integrals in Banach lattices, *PanAmerican Mathematical Journal*, vol 25 (3), 1-16, 2015.
- A. Boccuto, D. Caneloro, A. R. Sambucini, Henstock multivalued integrability in Banach lattices with respect to pointwise non atomic measures, *Atti Accad. Naz. Lincei Rend. Lincei Mat. Appl.* Volume 26, Issue 4, 2015, pp. 363-383 DOI: 10.4171/RLM/710
- D. Caneloro, A. Croitoru, A. Gavrilut, A.R. Sambucini, An extension of the Birkhoff integrability for multifunctions, *Mediterranean J. Math* Volume 13, Issue 5, pp 2551-2575, (2016), (online 2015), Doi: 10.1007/s00009-015-0639-7.
- D. Caneloro, A. Croitoru, A. Gavrilut, A.R. Sambucini, Atomicity related to non-additive integrability, *Rend. Circolo Matem. Palermo*, Volume 65 (3), 435-449, 2016 online Doi: 10.1007/s12215-016-0244-z.
- D. Caneloro, L. Di Piazza, K. Musiał, A.R. Sambucini, Gauge integrals and selections of weakly compact valued multifunctions, *J.M.A.A* Volume 441, Issue 1, 1 September 2016, Pages 293–308, Doi: 10.1016/j.jmaa.2016.04.009.
- A. R. Sambucini, The Choquet integral with respect to fuzzy measures and applications, *Math. Slov.* vol. 67 n. 6, 1427-1450, DOI: <https://doi.org/10.1515/ms-2017-0049>.
- A. Boccuto, D. Caneloro, A. R. Sambucini, L^p spaces in vector lattices and applications, *Math. Slov.*, vol. 67 n. 6, 1409-1426. arXiv 1604.07570. DOI: <https://doi.org/10.1515/ms-2017-0060>

- D. Caneloro, L. Di Piazza, K. Musiał, A.R. Sambucini, Relations among gauge and Pettis integrals for $ck(X)$ -valued multifunctions, *Annali di Matematica*, (2018), 197 (1) 171-183 Doi: 10.1007/s10231-017-0674-z
- D. Costarelli, A. R. Sambucini, Approximation results in Orlicz spaces for sequences of Kantorovich max-product neural network operators, *Results in Mathematics*, 73 (1), (2018) 73:15, Doi: 10.1007/s00025-018-0799-4.
- D. Caneloro, L. Di Piazza, K. Musiał, A.R. Sambucini, Some new results on integration for multifunction, *Ricerche di Matematica* vol 67 (2), (2018), 361-372, Doi:10.1007/s11587-018-0376-x, arxiv 1610.09151.
- D. Caneloro, C.C.A. Labuschagne, V. Marraffa, A.R. Sambucini, Set-valued Brownian motion, *Ricerche di Matematica* vol 67 (2), (2018), 347-360, Doi: 10.1007/s11587-018-0372-1, arxiv 1509.06518
- D. Caneloro, A. Croitoru, A. Gavrilut, A.R. Sambucini, A multivalued version of the Radon-Nikodym theorem, via the single-valued Gould integral, *Australian Journal of Mathematical Analysis and Applications*, vol 15 (2) art 9, 1-16 (2018).
- D. Caneloro, A.R. Sambucini, A note on an extension of the Girsanov Theorem, *Computational Science and Its Applications ICCSA 2018*, (chapter) O. Gervasi et al. (Eds.): ICCSA 2018, LNCS 10960, pp. 676-683, 2018 Doi: https://doi.org/10.1007/978-3-319-95162-1_47.
- D. Caneloro, R. Mesiar, A.R. Sambucini, A special class of fuzzy measures: Choquet integral and applications, in corso di stampa su *Fuzzy Sets and Systems*, vol. 355, pp. 83-99, 2019, Doi: 10.1016/j.fss.2018.04.008.
- D. Costarelli, A. R. Sambucini, G. Vinti, Convergence in Orlicz spaces by means of the multivariate max-product neural network operators of the Kantorovich type, accepted in *Neural Computing and Applications*, (2019), arxiv: 1812.11543, Doi: 10.1007/s00521-018-03998-6.
- D. Caneloro, A. Croitoru, A. Gavrilut, A. Iosif, A.R. Sambucini, Properties of the Riemann-Lebesgue integrability in the non-additive case, *Rendiconti del Circolo Matematico di Palermo*, (2019), Doi 10.1007/s12215-019-00419-y.
- D. Caneloro, L. Di Piazza, K. Musiał, A.R. Sambucini, Multifunctions determined by integrable functions, *International Journal of Approximate Reasoning*, vol 112, pp 140-148, (2019), Doi: 10.1016/j.ijar.2019.06.002.

Perugia (PERUGIA), July 22, 2019

Place and date

Anna Rita Sambucini