

ACHILLE BASILE

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Date of birth: January 21st, 1958

Education

1981 – 1983: Higher education in Mathematics, National Institute for Advanced Mathematics "F. Severi" (INdAM), Rome

1976 – 1981: Laurea (Mathematics, summa cum laude), University Federico II

Positions and Professional Activities

2013 – present: Full Professor of Mathematical Methods for Economics, University Federico II

1994 - 2012: Full Professor of Mathematical Methods for Economics, Faculty of Economics, University Federico II

1987 – 1994: Associate Professor of Mathematical Methods for Economics, Faculty of Economics, University Federico II

1984 – 1987: Assistant Professor of Mathematical Analysis, Faculty of Sciences, University Federico II

2001 - 2006: Vice President of the *Division of Human and Social Sciences* of University Federico II, Naples

2005 – 2012: Dean of the Faculty of Economics, University Federico II, Naples

1997-2005: Director of the Ph. D. program in Mathematics for Economic Analysis and Finance, University Federico II, Naples

2013 – 2018: Nucleo di Valutazione of University of Bologna, member.

2013 – 2015: Presidio della Qualità of University of Naples Federico II, coordinator.

2016 – present: Nucleo di Valutazione of University of Naples Federico II, president.

2019 – present: Nucleo di Valutazione of University of Messina, president.

Scientific interests

Functional Analysis, Measure Theory, Game Theory, General Equilibrium Theory, Public Economic Theory.

Quality in higher education and research.

Organization of Conferences/Workshops/Summer Schools

SUMMER SCHOOLS: *FOUNDATIONS AND ADVANCEMENTS OF MATHEMATICAL ECONOMICS*, POZZUOLI, AIR FORCE ACADEMY

CHAIR: 1998-1999-2000-2001-2003

C.A.R.Te.Mi, Meeting of Real Analysis and Measure Theory

Member of the Organizing and Scientific Committee:

1986-1988-1990-1992-1994-1996-1998-2000-2002-2004-2006

Conference of the Society for the Advancement of Economic Theory

Member of the Organizing and Scientific Committee:

1993-1995-1999-2003-2005-2007-2011-2013-2015-2017

Chair: 2001; co-Chair: 2009-2019

European Workshop in General Equilibrium Theory

Member of the Scientific Committee: 2015, 2016, 2017, 2018

Member of the Organizing Committee: 2015

European Workshop in Economic Theory

Member of the Scientific Committee: 2019

Workshop on Equilibrium Analysis

Member of the Organizing Committee: 2010, 2011, 2012, 2013, 2014, 2018

Workshop on Games, Markets and Ambiguity

Member of the Organizing Committee: 2015

Awards

1991 Academic Prize for Mathematical Sciences, *SOCIETÀ NAZIONALE DI SCIENZE*

LETTERE ED ARTI IN NAPOLI.

2011 Guido Dorso Prize for University, *ASSOCIAZIONE INTERNAZIONALE GUIDO DORSO*, ROMA.

2015 Anassilaos Prize for Mathematics, *REGGIO CALABRIA*.

Professional Societies

- *ITALIAN ASSOCIATION OF MATHEMATICS APPLIED TO ECONOMIC AND SOCIAL SCIENCES (AMASES)*
1996-2000, member of Scientific Committee
2000-2005, General Secretary
2011- 2016, President
- *ITALIAN MATHEMATICAL UNION (UMI)*
- *AMERICAN MATHEMATICAL SOCIETY*
- *SOCIETY FOR THE ADVANCEMENT OF ECONOMIC THEORY*

Fellowships

2008 FULL FELLOW OF *ACCADEMIA DI SCIENZE FISICHE E MATEMATICHE, SOCIETÀ NAZIONALE DI SCIENZE LETTERE ED ARTI IN NAPOLI*

2020 ECONOMIC THEORY FELLOW OF THE *SOCIETY FOR THE ADVANCEMENT OF ECONOMIC THEORY*

Editorial activities

2000-2009, Editorial board of Lecture Notes in Economics and Mathematical Systems, Springer-Verlag,

ISSN: 0075-8442

2010-2016, Scientific Committee of Decisions in Economics and Finance,

ISSN: 1593-8883

2017- present, Economics Bulletin, Associate Editor, ISSN 1545-2921

PUBLICATIONS

Non-emptiness of the alpha-core: sufficient and necessary conditions, **International Journal of Game Theory**, N. 49, 1143-1153, 2020 (joint with Vincenzo Scalzo)

Geometry of anonymous binary social choices that are strategy-proof, **ArXiv 2008.02041**, 2020, (joint with Surekha Rao and K.P.S. Bhaskara Rao)

Anonymous, non-manipulable, binary social choice, **ArXiv 2007.01552**, 2020, (joint with Surekha Rao and K.P.S. Bhaskara Rao)

Binary strategy-proof social choice functions with indifference, **Economic Theory**, 2020, DOI: [10.1007/s00199-020-01273-1](https://doi.org/10.1007/s00199-020-01273-1) (joint with Surekha Rao and K.P.S. Bhaskara Rao).

The structure of two-valued coalitional strategy-proof social choice functions, **ArXiv 2002.06341**, 2020; **Journal of Math. Economics**, 2021 forthcoming (joint with Surekha Rao and K.P.S. Bhaskara Rao).

The Core of Economies with Collective Goods and a Social Division of Labor, **Economic Theory**, 2020, <https://doi.org/10.1007/s00199-020-01258-0> (joint with Robert P. Gilles, Maria Gabriella Graziano and Marialaura Pesce).

A new view on Arrovian dictatorship in a fuzzy setting, **FUZZY SETS AND SYSTEMS**, N. 349, 99-106, 2018, DOI: [10.1016/j.fss.2018.02.002](https://doi.org/10.1016/j.fss.2018.02.002) (joint with Vincenzo Scalzo).

On the ultrafilter representation of coalitionally strategy-proof social choice functions, **Economic Theory Bulletin**, N. 6, 1-13, 2018, DOI: [10.1007/s40505-017-0129-0](https://doi.org/10.1007/s40505-017-0129-0) (joint with Surekha Rao and K.P.S. Bhaskara Rao).

Cones with semi-interior points and equilibrium, **CSEF Working Papers ISSN: 2240-9696**, N. 443, 2016; **Journal of Math. Economics**, 71, 36-48, 2017, doi: [http://doi.org/10.1016/j.jmateco.2017.03.002](https://doi.org/10.1016/j.jmateco.2017.03.002) (joint with Maria Gabriella Graziano, Maria Papadaki and Ioannis A. Polyrakis).

Coalitional fairness with participation rates, **CSEF Working Papers ISSN: 2240-9696**, N. 442, 2016; **Journal of Economics**, 123, 97-139, 2018, DOI: [10.1007/s00712-017-0543-7](https://doi.org/10.1007/s00712-017-0543-7) (joint with Maria Gabriella Graziano and Ciro Tarantino).

Oligopoly and cost sharing in economies with public goods, **International**

Economic Review, N. 57, 487- 505, 2016 (joint with Maria Gabriella Graziano and Marialaura Pesce).

Mixed Markets with Public Goods, **CSEF Working Papers ISSN: 2240-9696**, N. 261, 2010 (joint with Maria Gabriella Graziano and Marialaura Pesce).

On Fairness of Equilibria in Economies with Differential Information, **Theory and Decision**, 76, 573-599, 2014 (joint with Maria Gabriella Graziano and Marialaura Pesce).

DOI 10.1007/s11238-013-9386-z

Core Equivalences for Equilibria Supported by Non-linear Prices, **Positivity**, 17, 621-653, 2013 (joint with Maria Gabriella Graziano), DOI: [10.1007/s11117-012-0195-3](https://doi.org/10.1007/s11117-012-0195-3) (published online August 31st, 2012)

Economies with informational asymmetries and limited vetoer coalitions, **Economic Theory**, 45, 147-180, 2010 (joint with Chiara Donnini and Maria Gabriella Graziano) . doi:[10.1016/j.jmateco.2008.11.001](https://doi.org/10.1016/j.jmateco.2008.11.001)

Core and equilibria in coalitional asymmetric information economies, **Journal of Math. Economics** 45, 293-307, 2009 (joint with Chiara Donnini and Maria Gabriella Graziano).

On the Aumann-Shapley value, **Positivity** 12, 613-629, 2008 (joint with Camillo Costantini and Paolo Vitolo). DOI: 10.1007/s11117-008-2207-x

Positive operators à la Aumann-Shapley on spaces of functions on D-lattices, **Positivity** 10, 701-719, 2006, (joint with Anna Avallone and Paolo Vitolo). DOI: 10.1007/s11117-006-0052-3

Coalitional economies with public projects, **Social Choice and Welfare** 25, 127-139, 2005 (joint with Anna De Simone and Maria Gabriella Graziano). DOI: 10.1007/s00355-005-0038-2

On a linearity theorem for measures, **Scientiae Mathematicae Japonicae** 60, n.3, 487-500, 2004 (joint with Anna Avallone).

On a Marinacci uniqueness theorem for measures, **Journal of Mathematical Analysis and Applications** 286, 378-390, 2003 (joint with Anna Avallone).

On the Edgeworth's conjecture in finitely additive economies with restricted coalitions, **Journal of Math. Economics** 36, 219-240, 2001 (joint with Maria Gabriella Graziano).

Chi ha detto che un Matematico non può vincere il Nobel?, **Atti Terzo Convegno Matematica e Cultura**, Venezia 1999, Springer-Italia (joint with Marco Li Calzi).

Economisti e matematica, dal 1494 fino al 1969, oltre l'arte del far di conto, **Atti Terzo Convegno Matematica e Cultura**, Venezia 1999, Springer-Italia (joint with Marco Li Calzi).

The completeness of L_p -spaces in the finitely additive setting and related stories, **Journal of Math. Anal. Appl.** 248, 588-624, 2000 (joint with K.P.S. Bhaskara Rao).

On the Range of Additive Correspondences, nel volume **Functional Analysis and Economic Theory**, Eds: Y. Abramovich, E. Avgerinos and N. C. Yannelis, Springer Verlag, Berlin, 1998, 47-60. ISBN 978-3-642-72222-6 (2012 reprint).

Liapunov-Richter Theorem in B -convex Spaces, **Journal of Mathematical Economics** 30, 109-118, 1998 , (joint with Anna Avallone)

On a Unifying Approach to Decomposition Theorems of Yosida-Hewitt type, **Annali di Matematica Pura e Applicata** 173, 107-125, 1997 (joint with A. V. Bukhvalov)

On the Aubin-like Characterization of Competitive Equilibria in Infinite Dimensional Economies, **Rivista di Matematica per le Scienze Economiche e Sociali** 19, 187-213, 1996 (joint with Anna De Simone and Maria Gabriella Graziano)

On The Generalized Dictatorship of Arrovian Social Welfare Functions, **Studi Economici**, 57, 35-51, 1995

From Large Economies to Uniform Semigroup Valued Measures, **Atti III Congresso "Dr. Monteiro" Bahia Blanca**, April 26-28 1995, 91-99, ISSN 0327-9170

Equilibri di Nash per giochi non cooperativi, **Atti III Congresso "Dr Monteiro" Bahia Blanca**, April 26-28 1995, 127-138, ISSN 0327-9170

Bounded Common Extensions of Bounded Charges, **Proceedings of American Mathematical Society** 121, May, 137-143, 1994, (joint with K.P.S. Bhaskara Rao and R.M. Shortt)

Finitely Additive Correspondences, **Proceedings of American Mathematical Society** 121, July, 883-891, 1994

The Generalized Yosida-Hewitt Theorem, **Mathematical Proceedings of Cambridge Philosophical Society** 116, 527-533, 1994 (joint with A.V. Bukhalov and M. Yakubson)

Finitely Additive Nonatomic Coalition Production Economies: Core-walras Equivalence, **International Economic Review** 34, 983-994, 1993

On The Liapunov-richter Theorem in the Finitely Additive Setting, **Journal of Mathematical Economics** 22, 557-561, 1993 (joint with Anna Avallone)

Ricchezza di selezioni per multifunzioni di produzione, **Atti XVII Convegno AMASES**, Ischia, 8-11 settembre 1993, 189-199

Monotonely Cauchy Locally-solid Topologies, **Order** 7, 407-416, 1991 (joint with T. Traynor)

Alcuni risultati per multifunzioni finitamente additive, **Atti XV Convegno AMASES**, Grado, 26-29 settembre 1991, 91-99

Integration: Uniform Structure, **Journal of Math. Anal. Appl.** 159, 373-381, 1991 (joint with A. Avallone)

Common Extension of Group-valued Charges, **Boll. UMI** ser. 7 vol 5A, 157-162, 1991 (joint with K. P. S. Bhaskara Rao)

A Remark on a Frechet-Smulian Criterion, **Bull. of Polish Acad. of Sci.** 37 n. 7/12, 385-389, 1989

Scelte comunitarie coalizioni ed infiniti agenti, Preprint n. 54, 1989, Dipartimento di Matematica e Applicazioni, University Federico II, Naples

Core-Walras Equivalence and Quasi-countable Additivity, **Studi Economici** 38, 25-41, 1989

Sequential Compactness for Sets of Sugeno Fuzzy Measures, **Fuzzy Sets and System** 21, 243-247, 1987

The Convergence With Respect to Small Systems Comes From a Metric, **Rend. Circ. Mat. Palermo** Ser. II 36, 110-113, 1987

Controls of Families of Finitely Additive Functions, **Ricerche di Matematica** 35, 291-302, 1986

Topological Boolean Rings of First and Second Category. Separating Points for

a Countable Family of Measures, **Radovi Matematički** 2, 113-125, 1986 (joint with H. Weber)

A Proof of Extension Theorems of s -bounded Set Functions, **Atti Sem. Mat. Fis. Univ. Modena** 34, 65-70, 1985/86

Su un teorema di decomposizione alla Lebesgue per topologie su anelli di insiemi, **Rend. Acc. Sci. Fis. Mat. Napoli** Ser. IV vol. 51/1 anno 122, 61-65, 1984

Decomposizioni di topologie su algebre di insiemi, Atti II Convegno di Topologia Taormina 4-7 aprile 1984. Supp. **Rend. Circ. Mat. Palermo** Ser. II n.12, 181-187, 1986

Work in Progress

Anonymous, non-manipulable, binary social choice with infinite voters, (joint with Surekha Rao and K.P.S. Bhaskara Rao)