

BENEDETTO MATARAZZO

BREVE CURRICULUM

Nato a Catania il 10/03/1946

Laurea in Economia e Commercio presso l'Università degli Studi di Catania (votazione 110/110 e lode)

Diverse specializzazioni post lauream conseguite in varie Università

Dal 1970 al 1972 assistente incaricato di Matematica generale presso la Facoltà di Economia e Commercio dell'Università di Catania, sede presso la quale ha proseguito la sua intera carriera

Dal 1972 al 1980 assistente ordinario di Matematica generale

Dal 1975 al 1986 professore incaricato di Matematica finanziaria II

Dal 1980 al 1986 professore associato di Matematica generale

Dal 1986 professore ordinario nel settore scientifico-disciplinare SECS-S/06 presso la Facoltà di Economia

Dal 1986 al 2002 professore ordinario di Matematica generale, Facoltà di Economia

Negli A.A. 1993/94 e 1994/95 professore supplente di Metodi matematici per la gestione delle imprese presso il corso di D.U. di Economia e Amministrazione delle imprese e negli A.A 1997/98 e 1998/99 presso il corso di D.U. di Economia e gestione dei servizi turistici, sede di Caltagirone

Dall'A.A. 2002/03 professore ordinario di Matematica finanziaria nel corso di laurea in Economia

Negli A.A. 2002/03 e 2004/05 supplente di Matematica generale (un modulo) nel corso di laurea in Economia

Dall'A.A. 2004/05 supplente di Matematica generale nel corso di laurea in Economia aziendale; negli A.A. 2004/05 e 2005/06 supplente di Matematica generale anche nel corso di laurea in Economia aziendale presso la sede distaccata di Modica

Dall'A.A 2007/08 anche ordinario di Modelli matematici per i mercati finanziari e assicurativi nel corso di laurea specialistica in Finanza aziendale

Negli A.A. 2002/03-2005/06 professore supplente di Matematica finanziaria ed attuariale presso la Facoltà di Scienze MM.FF.NN. dell'Università degli Studi di Catania

Direttore del Master in Financial Management della Scuola Superiore dell'Università degli Studi di Catania, A.A 1998/99 e 1999/2000

Dal 1986 al 2009 Direttore prima e Presidente poi (dal 1998) della Sezione Matematico-statistica della Facoltà di Economia, con l'esclusione degli anni 1999 -2002

Dal 1999 al 2001 Preside della Facoltà di Economia dell'Università di Catania

Dall'A.A. 2007/08 Presidente del corso di laurea specialistica in Finanza aziendale della Facoltà di Economia dell'Università di Catania

Nel 1992 e nel 1994 professore a contratto presso la Fernuniversiteit di Hagen (Germania)

Dall'A.A.1992/93 all'A.A.2002/03 docente di un modulo di Metodi quantitativi presso il Master in Business Administration della Scuola di Amministrazione Aziendale dell'Università di Torino e nell'A.A. 2003/04 presso il Master in Management Pubblico dell'Università L. Bocconi di Milano

Dall'A.A. 2004/05 docente di un modulo di Metodi quantitativi per le previsioni e le decisioni nel corso di laurea specialistica in Economia delle amministrazioni pubbliche e delle organizzazioni internazionali dell'Università L. Bocconi di Milano

Coordinatore del Dottorato di ricerca in Matematica per le decisioni economiche e finanziarie dell'Università degli Studi di Catania, XXII e XXIII ciclo

Membro dell'A.M.A.S.E.S. (Associazione per la Matematica Applicata alle Scienze Economiche e Sociali), dell'A.I.R.O. (Associazione Italiana di Ricerca Operativa), dell'U.M.I. (Unione Matematica Italiana), dell'I.I.A. (Istituto Italiano degli Attuari) e dei Gruppi di Lavoro Europei di MCDA e di Financial Modelling

Dal 1990 al 1992 membro del Consiglio direttivo dell'A.I.R.O. (Associazione Italiana di Ricerca Operativa)

Dal 1990 al 1996 membro del Comitato scientifico dell'A.M.A.S.E.S. (Associazione per la Matematica Applicata alle Scienze Economiche e Sociali)

Organizzatore di numerosi convegni scientifici nazionali ed internazionali

Organizzatore della prima (1983) e della settima (2000) International Summer School on MCDA e membro del suo comitato scientifico sino al 2003 e dal 2008.

Invited speaker in numerosi e prestigiosi convegni scientifici internazionali e relatore in molti seminari e conferenze presso Università di tutto il mondo

Vincitore, assieme a S. Greco e R. Slowinski, del premio per il miglior contributo metodologico al Convegno mondiale del *Decision Science Institute*. Atene, luglio 1999

Coautore, assieme a S. Greco e R. Slowinski, dell'articolo "Rough set theory for multicriteria decision analysis", *European Journal of operational Research*, vol. 129 (2001), pp. 1-47, che è stato inserito (unico contributo di autori italiani) tra i 30 articoli a livello mondiale di maggior impatto scientifico pubblicati dal 1975 al 2005 dalla prestigiosa Rivista

Membro dell'Editorial board di prestigiose Riviste scientifiche internazionali ed italiane di Ricerca operativa e di Finanza (*European Journal of Operational Research*, *Journal of Multi-criteria Decision Analysis*, *Foundations of Computing and Decision Sciences*, *Ricerca Operativa*, ecc.)

Membro del Programme Committee di EURO XIV (Gerusalemme, 1995), di EURO XV (Barcellona, 1997) e presidente del Programme Committee di EURO XVI (Bruxelles, 1998)

Esperto nazionale italiano presso il Comitato Scientifico Europeo della rete tematica "TheNUCE" (Thematic Network Project in European University Continuing Education) sulla formazione permanente (1996-1999)

Dal 2001 consigliere della Succursale di Catania della Banca d'Italia

Dal 2002 al 2007 membro del Comitato scientifico della Fondazione Dottori Commercialisti Sicilia

PRINCIPALI INTERESSI SCIENTIFICI

L'attività scientifica è prevalentemente incentrata su tematiche di Teoria delle decisioni, con contributi significativi nell'ambito dell'MCDA (Multiple Criteria Decision Analysis). In tale contesto ha elaborato metodologie originali e, nei più recenti lavori svolti in collaborazione a S. Greco (Università di Catania) e R. Slowinski (Politecnico di Poznan e medaglia d'oro EURO), ha sviluppato la teoria dei Rough sets basati sulla relazione di dominanza (DRSA), proponendo il nuovo approccio MCDA che utilizza regole decisionali, nonché l'assiomatizzazione di classici e nuovi operatori di aggregazione delle preferenze, in particolare nell'ambito del Conjoint measurement, della rappresentazione dell'interazione tra criteri e di approcci puramente ordinali. Tutti i risultati di tali ricerche hanno una collocazione editoriale internazionale, essendo stati pubblicati su prestigiose riviste scientifiche o su volumi monografici su invito.

ALCUNE PUBBLICAZIONI SCIENTIFICHE

B. MATARAZZO, "Multicriterion Analysis of Preferences by means of Pairwise Actions and Criterion comparisons (MAPPAC)", *Applied Mathematics and Computation*, vol. 18/2 (1986), pp. 119-141;

B. MATARAZZO, "Preference Ranking Global frequencies in Multicriterion Analysis (PRAGMA)", *European Journal of Operational Research*, vol. 36/1, 1988, 36-49;

B. MATARAZZO, "A more effective implementation of the MAPPAC and PRAGMA methods", *Foundations of Control Engineering*, 13 (1988), pp. 155-173,

B. MATARAZZO, "A pairwise criterion comparison approach: the MAPPAC and PRAGMA methods", in Bana e Costa, C. A. (ed.), *Readings in Multiple Criteria Decision Aid*, Spriger-Verlag, Berlin-Heidelberg, 1990, 253-273;

B. MATARAZZO, "PCCA and k-dominance in MCDM", *Belgian Journal of Operational Research, Statistics and Computer Science*, 30/3 (1990);

B. MATARAZZO, "MAPPAC as a compromise between outranking methods and MAUT", *European Journal of Operational Research*, vol. 54, 1991, pp. 48-65;

B. MATARAZZO, B., "PCCA and compensation", in Korhonen, P., Lewandowski, A., Wallenius, J., (eds.), *Multiple Criteria Decision Support*, LNEMS 356, Springer-Verlag, Berlin-Heidelberg, pp. 99-108;

J. SPRONK, B. MATARAZZO (eds.) "Modelling for financial decisions", Springer-Verlag, Berlino 1991;

J. SPRONK, B. MATARAZZO, "La pianificazione interattiva multifattoriale: stato dell'arte", *Rivista di Economia Agraria*, 47 (1992), pp. 531-543;

- M. PARUCCINI, B. MATARAZZO, "The use of MAPPAC and PRAGMA methods to support decision on industrial waste management" in M. Paruccini (ed.), *Applying Multiple Criteria Decision to Environmental Management*, Kluwer, Brussels and Luxemburg 1994, pp. 95-110;
- J. van den BERGH, B. MATARAZZO, G. MUNDA, "Measurement and uncertainty issues in environmental management", Tinbergen Institute, TI 95-81 (1995), Amsterdam-Rotterdam;
- B. MATARAZZO, P. NIJKAMP, "Methodological complexity in the use of meta-analysis for empirical case studies", Tinbergen Institute, TI 95-141 (1995), Amsterdam-Rotterdam;
- S. GRECO, S. LO CASCIO, B. MATARAZZO, "Rough set approach to stock selection: an application to Italian market", in M. Bertocchi, E. Cavalli, S. Komlosi (eds.), *Modelling Techniques for Financial Markets and Bank Management*, Physica-Verlag, Heidelberg 1996, pp. 192-211;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Rough approximation of a preference relation by dominance relations", Warsaw University of Technology, Institute of Computer Science, Research Report 16, 1996, and in S. Tsumoto et al. (eds.), *Proc. of the Fourth Internat. Workshop on Rough sets, Fuzzy Sets and Machinery Discovery – RSDF'96*, The University of Tokyo, November 6-8, 1996, pp. 125-130, and *European Journal of Operational Research*, vol. 117 (1999), pp. 63-83;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "L'approccio dei rough sets ai problemi di scelta", Atti del XX Convegno annuale A.M.A.S.E.S., Università degli Studi di Urbino, 1996, pp. 357-375;
- B. MATARAZZO, G. MUNDA, "New approach for the comparison of L-R fuzzy numbers: a theoretical and operational analysis", Universidad Autónoma de Barcelona, Departament d'Economia i d'Història Econòmica – Institut d'Anàlisi Econòmica, CSIC, Working Paper 346, 96, Barcelona 1996;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Rough set approach to multi-attribute choice and ranking problems", Warsaw University of Technology, Institute of Computer Science, Research Report 38/95 and in G. Fandel, T. Gal (eds.), *Multiple Criteria Decision Making, Proc. XII International Conference in Hagen*, LNEMS vol. 465, Springer-Verlag, Berlin 1997, pp. 318-329;
- B. MATARAZZO, P. NIJKAMP, "Meta-analysis for comparative environmental case studies: methodological issues", *International Journal of Social Economics*, 24 (1997), pp. 799-811; cited as the Highest Quality Rating Paper by ANBAR Electronic Intelligence;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Rough approximation of a preference relation by fuzzy dominance relations", in *Proc. 1st International Workshop on Preferences and Decisions*, Trento, 5-7/06/1997, pp. 70-72;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Un nuovo approccio basato sui rough sets per la valutazione del rischio di fallimento", Atti del XXI Convegno Annuale A.M.A.S.E.S., Roma 1997, pp. 319-338;
- B. MATARAZZO, "L'approccio dei rough sets all'analisi delle decisioni", Conferenza invitata, Atti del XXI Convegno Annuale A.M.A.S.E.S., Appendice, Roma 1997, pp. 77-111;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, A. TSOUKIAS, "Exploitation of a rough approximation of the outranking relation", Cahier du LAMSADE N. 152, Université de Paris Dauphine, décembre 1997;
- B. MATARAZZO, "Basic principles of rough set analysis", in D. Mancini, M. Squillante, A. Ventre (eds.), *New trends in fuzzy systems*, World Scientific, Singapore, 1998;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, A. TSOUKIAS, "Exploitation of a rough approximation of the outranking relation in multicriteria choice and ranking", in T.J. Stewart and R.C. van den Honert (eds.), *Trends in Multicriteria Decision Making*, LNEMS vol. 465, Springer-Verlag, Berlin 1998, pp. 45-60;

- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "A new rough set approach to evaluation of bankruptcy risk", in C. Zopounidis (ed.), *Operational tools in the management of financial risks*, Kluwer, Dordrecht, 1998, pp. 121-136;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "New developments in the Rough Set Approach to Multi-Attribute decision Analysis", in *Tutorial and Research Reviews*, 16th European Conference on Operational research, Brussels, July 12-15, 1998; also in *Bulletin of International Rough Set Society*, vol. 2, September 1998, No. 2/3. pp. 57-87;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Modellizzazione delle preferenze per mezzo di regole di decisione", *Atti del XXII Convegno annuale A.M.A.S.E.S.*, Bozzi, Genova 1998, pp. 233-247;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Un nuovo approccio dei rough sets alla classificazione multiattributo e multicriteriale" *Atti del XXII Convegno annuale A.M.A.S.E.S.*, Genova, 9-12 settembre 1998, Bozzi, Genova 1998, pp. 249-260;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "The rough set approach to decision support", in *Proc. of the annual conference of the Operational Research Society of Italy (AIRO)*, Treviso, 23-25 Settembre 1998, pp. 561-564;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "A new rough set approach to multicriteria and multiattribute classification", in L. Polkowski and A. Skoron (eds.), *Rough Sets and Current Trends in Computing*, LNAI vol. 1424, Springer-Verlag, Berlin 1998, pp. 60-67;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Fuzzy similarity relation as a basis for rough approximations", in L. Polkowski, A. Skowron (eds.), *Rough Sets and Current Trends in Computing*, LNAI vol. 1424, Springer-Verlag, Berlin 1998, pp. 283-289;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Rough approximation of a preference relation in a pairwise comparison table", in L. Polkowski, A. Skowron (eds.), *Rough Sets in Knowledge Discovery*, vol. 2, Physica-Verlag, Heidelberg, New York 1998, pp. 13-36;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Rough set theory approach to decision analysis", in R. Felix (ed.), *Proc. 2nd International Workshop on Fuzzy Decision Analysis and Neural Networks for Management, Planning and Optimization (EFDAN'98)*, Dortmund, June 16-17, 1998, pp. 1-28;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Conjoint measurement, preference inconsistencies and decision rule model", in *Proc. 2nd International Workshop on Preferences and Decisions*, Trento, July 1-3, 1998, pp. 49-53;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Rough set handling of ambiguity", in *Proc. 6th European Congress on Intelligent Techniques & Soft Computing (EUFIT'98)*, Aachen, September 7-10, 1998, pp. 3-14;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Fuzzy measures as a technique for rough set analysis", in *Proc. 6th European Congress on Intelligent Techniques & Soft Computing (EUFIT'98)*, Aachen, September 7-10, 1998, pp. 99-103;
- M. CLOONAN, A. HEARINGER, B. MATARAZZO, M. MURPHY, M. OSBORNE, "The use of cost-benefit analysis in funding continuing education: steering the fifth wheel", *International Journal of Lifelong Education*, 18/6 (1999), 492-504;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "On joint use of indiscernibility, similarity and dominance in rough approximation of decision classes", Research Report RA-012/98, Institute of Computing Science, Poznan University of Technology, Poznan, November 1998, and in *Proc. 5th International Conference of the Decision Science Institute*, Athens, Greece, July 4-7, 1999, pp. 1380-1382, "Best Theoretical Paper Award" of the Conference;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Fuzzy dominance as basis for rough approximations", in *Proc. 4th Meeting of the EURO Working Group on Fuzzy sets and 2nd Intern. Conf. On Soft and Intelligent Computing, EUROFUSE-SIC'99*, Budapest, 1999, pp 273-278;

S. GRECO, B. MATARAZZO, R. SLOWINSKI, "The use of rough sets and fuzzy sets in MCDM", Chapter 14, in T. Gal, T Hanne, T.J. Stewart (eds.), *Advances in Multiple Criteria Decision Making*, Kluwer Academic Publishers, Boston, Dordrecht, London 1999,. 14.1 – 14.59;

S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Handling missing values in rough set analysis of multi-attribute and multi-criteria decision problems", in N. Zhong, A. Skowron and S. Oshuga (eds.), *New Directions in Rough sets, data Mining and Granular-Soft Computing (Proc. 7th RSFDGrC'99, Yamaguchi, Japan)*, Lectures Notes in Artificial Intelligence, vol. 1711, Springer-Verlag, Berlin, 1999, pp.146-157;

S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Rough approximation of a preference relation by dominance relation", *European Journal of Operational Research*, vol. 117 (1999) , pp. 63-83;

S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Dominance-based rough set approach to evaluation of bankruptcy risk", Chapter H1.9.1 in W. Kloesgen and J. Zytkow (eds.), *Handbook of Data Mining and Knowledge Discovery*, Oxford University Press, New York 1999;

S. GRECO, B. MATARAZZO, R. SLOWINSKI, S. ZANAKIS "Rough set analysis of data tables with missing values", in D. Despotis, C. Zopounidis (eds.), *Integrating technology & human decisions, Proc. 5th International Conference of the Decision Science Institute*, Athens, Greece, July 4-7, 1999, vol. II, pp. 1359-1362;

R. SUSMAGA, R. SLOWINSKI, S. GRECO, B. MATARAZZO, "Computation of reducts for multi-attribute and multi-criteria classification", *Intelligent Information Systems VIII*, Proceedings of the Workshop held in Ustron. Poland, June 14-18, 2000, pp. 403-423;

S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Rule-based approach to multicriteria choice and ranking", Proceedings of the Fourth Conference on *Multi-Objective Programming and Goal Programming: Theory & Applications*, Ustron. Poland, May 29 – June 1, 2000, pp. 403-423;

S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Rough set approach to decision under uncertainty", Proceedings 3rd *International Workshop on Preference and Decisions*, Trento, June 8-10, 2000, pp. 81-85;

S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Fuzzy measures and equilibrium conditions on the financial market", in R. Almeida Ribeiro, H.-J. Zimmermann, R.R. Yager, J. Kacprzyk (eds.), *Soft Computing in Financial Engineering*, Physica-Verlag, Heidelberg, 1999, pp. 39-50;

S. GRECO, B. MATARAZZO, R. SLOWINSKI, "A fuzzy extension of the rough set approach to multicriteria and multiattribute sorting", in J. Fodor, B. De Beats and P. Perny (eds.), *Preferences and Decisions under Incomplete Information*, Physica-Verlag, Heidelberg, 2000, pp. 131-154;

S. GRECO, B. MATARAZZO, R. SLOWINSKI, R. J. STEFANOWSKI, "Rough sets processing of inconsistent information in decision analysis", *Control and Cybernetics*, vol. 29 (2000), N° 1, pp.379-404;

S. GRECO, B. MATARAZZO, R. SLOWINSKI, R. J. STEFANOWSKI, "Variable consistency method of dominance based rough set approach", in W. Ziarko and Y. Yao (eds.), *Rough sets and Current Trend in Computing (RSCTC'2000)*, Springer Verlag, Berlin Heidelberg New York, 2000, pp. 170-181;

S. GRECO, B. MATARAZZO, R. SLOWINSKI, R. J. STEFANOWSKI, "An algorithm for induction of decision rules consistent with the dominance principle", in W. Ziarko and Y. Yao (eds.), *Rough sets and Current Trend in Computing (RSCTC'2000)*, Springer Verlag, Berlin Heidelberg New York, 2000, pp. 304-313;

S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Rough set approach to decisions under risk", in W. Ziarko and Yiyu Yao (eds.), *Rough Sets and Current Trend in Computing (RSCTC'2000)*, Springer Verlag, Berlin Heidelberg New York, 2000, pp. 160-169;

S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Dealing with missing data in rough set analysis of multi-attribute and multi-criteria decision problems", in S.H. Zanakias, G. Doukidis, C. Zopounidis (eds.), *Decision Making: Recent Development and Worldwide Applications*, Kluwer Academic Publishers, Boston, 2000, pp. 295-316;

- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Rough set processing of vague information using fuzzy similarity relations", in C.S. Calude, G. Paun (eds.), *Finite versus Infinite – Contribution to an Eternal Dilemma*, Springer-Verlag, London, 2000, pp. 149-173;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Dominance-based rough set approach to rating analysis", *Proceedings of 27th Meeting of Euro Working Group on Financial Modelling*, Hofstra University, New York, 16-18 November 2000;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Misurazione congiunta e incoerenze nelle preferenze", Atti del 23° Convegno A.M.A.S.E.S., Rende 8-11 settembre 2000, pp.255-269;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Extension of the rough set approach to multicriteria decision support", *INFOR*, vol. 38 (3), 2000, pp. 161-196;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, voce "Decision rule", in *Encyclopaedia of Management*, Gale Group, Farmington Hills, MI, 2000, pp. 178-183;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Fuzzy dominance-based rough set approach", in F. Masulli, R. Parenti, G. Pasi (eds.), *Advances in Fuzzy Systems and Intelligent Technologies*, Shaker Publishing, Maastricht (NL), 2000, pp. 56-66;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Rough sets theory for multicriteria decision analysis", *European Journal of Operational Research*, vol 129 (2001), pp. 1-47;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Conjoint measurement and rough set approach for multicriteria sorting problems in presence of ordinal criteria", in A. Colomi, M. Paruccini and B. Roy (eds.), *A-MCD-A, Selected Papers from 49th and 50th Meeting of the EURO Working Group on MCDA Cerisy-La-Salle 1999*, JRC EUR Report 19808 EN, Luxembourg, 2001, pp. 117-144;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Rough set theory for multicriteria decision analysis", *European Journal of operational Research*, vol. 129 (2001), pp. 1-47;
- B. MATARAZZO, G. MUNDA, "New Approaches for the comparison of L - R fuzzy numbers: a theoretical and operation analysis", *Fuzzy Sets and Systems*, vol. 118 (2001), 407-418;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Rule-based decision support in multicriteria choice and ranking, in S. Benferhat, Ph. Besnard (eds.), *Symbolic and Quantitative Approaches to Reasoning with Uncertainty*, LNAI 2143, Springer-Verlag, Berlin, 2001, pp. 29-47;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Assessing of a value of information using rough sets and fuzzy measures", in J. Chojcan, J. Leski (eds.), *Fuzzy Sets and their Applications*, Silesian University of Technology Press, Gliwice, 2001, pp. 185-193;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Rough set approach to decisions under risk", in W. Ziarko, Y. Yao (eds.), *Rough Sets and Current Trend in Computing (RSCTC'2000)*, LNAI 2005, Springer-Verlag, Berlin, 2001, pp. 160-169;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, J. STEFANOWSKI, "Variable consistency model of dominance-based rough set approach", in W. Ziarko, Y. Yao (eds.), *Rough sets and Current Trend in Computing (RSCTC'2000)*, LNAI 2005, Springer-Verlag, Berlin, 2001, pp. 170-181;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Rough approximation by dominance relation", *International Journal of Intelligence systems*, vol. 17/2 (2002), 153-171;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Rough set methodology for sorting problems in presence of multiple attributes and criteria", *European Journal of operational Research*, vol. 138 (2002), pp. 247-259;

- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Multicriteria classification". Chapter 16.1.9 in W. Kloesgen and J. Zytrow (eds.), *Handbook of Data Mining and Knowledge Discovery*, Oxford University Press, New York, 2002, pp. 318-328;
- B. MATARAZZO, J. TEGHEM "O.R. for innovation and quality of life", *European Journal of operational Research*, vol. 139 (2002), n. 2, pp. 191-192;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Rough Set Analysis of Preference Ordered Data", in James J. Alpigini, James F. Peters, Andrzej Skowron, Ning Zhong (Eds.), *Rough Sets and Current Trends in Computing* (RSCTC' 2000), Springer-Verlag, Berlin Heidelberg New York, 2002, 44-59;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Preference Representation by means of conjoint measurement and decision rule model", in D. Bouyssou, E. Jacquet-Lagrèze, P. Perny, R. Slowinski, D. Vanderpooten, Ph. Vique (eds.), *Aiding Decisions with Multiple Criteria, Essays in Honour of Bernard Roy*, Kluwer Academic Publisher, Boston, 2002, 263-313;
- R. SLOWINSKI, S. GRECO, B. MATARAZZO, "Axiomatization of utility, outranking and decision-rule preference models for multiple-criteria classification problems under partial inconsistency with the dominance principle", *Control and Cybernetics*, 31, No. 4, 2002, pp. 1005-1035;
- R. SLOWINSKI, S. GRECO, B. MATARAZZO, "Mining decision-rule preference model from rough approximation of preference relation", in *Proc. 26th IEEE Annual Int. Conference on Computer, Software and Applications (COMPSAC 2002)*, Oxford, England, 2002, pp. 1129-1134;
- R. SLOWINSKI, S. GRECO, B. MATARAZZO, "Rough set analysis of preference-ordered data", in J. J. Alpigini, J. F. Peters, A. Skowron, N. Zhong (eds.), *Rough Sets and Current Trends in Computing*, LNAI 2475, Springer-Verlag, Berlin, 2002, pp. 44-59;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, J. STEFANOWSKI, "Mining association rules in preference-ordered data", in M.-S. Hacid, Z.W. Ras, D.A. Zighed, Y. Kodratoff (eds.), *Foundations of Intelligent Systems*, LNAI 2366, Springer-Verlag, Berlin, 2002, pp. 442-450;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, J. STEFANOWSKI, "Importance and interaction of conditions in decision rules", in J.J. Alpigini, J.F. Peters, A. Skowron, N. Zhong (eds.), *Foundations of Intelligent Systems*, LNAI 2475, Springer-Verlag, Berlin, 2002, pp. 255-262;
- L. BONACCORSO, S. GRECO, B. MATARAZZO, P. PLATANIA, "Some new properties of risk measures", in G. Fandel, U. Backes-Gellner, M. Schutler, J. F. Staufenbiel (eds.), *Modern Concepts of the Theory of the Firm*, Springer, Berlin, 2004 pp. 513-552,
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Dominance-Based Rough set Approach to Knowledge Discovery (I): General Perspective", in N. Zhong, J. Liu (eds.), *Intelligent Technologies for Information Analysis*, Springer, Berlin, 2004, pp. 513-552;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Dominance-Based Rough set Approach to Knowledge Discovery (II): Extensions and Applications", in N. Zhong, J. Liu (eds.), *Intelligent Technologies for Information Analysis*, Springer, Berlin, 2004, pp. 553-612;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Axiomatic characterization of a general utility function and its particular cases in terms of conjoint measurement and rough set decision rules", *European Journal of Operational Research*, vol. 158, 2004, pp- 271-292,.
- S. ANGILELLA, S. GRECO, F. LAMANTIA, B. MATARAZZO., "Assessing non additive utility for multicriteria decision aid", *European Journal of Operational Research*, vol. 158, 3, 2004, pp. 734-744;

- J.-M. MARTEL, B. MATARAZZO, "Other outranking approaches", in J. Figueira, S. Greco and M. Erghott (eds.). *Multiple Criteria Decision Analysis: State of the Art Surveys*, Springer, Berlin, 2005, pp. 197-262;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Decision rule approach", in J. Figueira, S. Greco and M. Erghott (eds.). *Multiple Criteria Decision Analysis: State of the Art Surveys*, Springer, Berlin, 2005, pp. 507-563.
- S. GRECO, B. MATARAZZO, N. PAPPALARDO, R. SLOWINSKI, "Measuring expected effects of interventions based on decision rules", *Journal of Experimental & Theoretical Artificial Intelligence*, Vol. 17, No. 1-2, 2005, pp. 103-118;
- R. SLOWINSKI, S. GRECO, B. MATARAZZO, "Rough set based decision support". Chapter 16, in E.K. Burke and G. Kendall (eds.), *Search Methodologies: Introductory Tutorials in Optimization and Decision Support Techniques*, Springer-Verlag, New York, 2005, pp. 475-527;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Rough membership and Bayesian confirmation measures for Parameterized Rough Sets", in D. Slezak, J. Yao, J. Peters, W. Ziarko, X. Hu (eds.), *Rough Sets, Fuzzy Sets, Data Mining, and Granular Computing*, LNAI 3641, Springer, Berlin, 2005, pp. 314-324;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Generalizing Rough Set Theory through Dominance-based Rough Set Approach", in D. Slezak, J. Yao, J. Peters, W. Ziarko, X. Hu (eds.), *Rough Sets, Fuzzy Sets, Data Mining, and Granular Computing*, LNAI 3642, Springer, Berlin, 2005, pp. 1-11;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Dominance-based Rough Set Approach to Case-Based Reasoning", in V.Torra, Y. Narukawa, A.Valls, J. Domingo-Ferrer (eds.), *Modelling Decisions for Artificial Intelligence*, LNAI 3885, Springer, Berlin, 2006, pp. 7-18;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Rough sets approach to customer satisfaction analysis", in S. Greco et al. (eds.), *Rough sets and current trends in computing*, LNAI 4259, Springer, Berlin, 2006, pp. 284-295;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Dominance-based rough set approach to decision involving a plurality of decision makers". in S. Greco et al. (eds.), *Rough sets and current trends in computing*, LNAI 4259, Springer, Berlin, 2006, pp. 318-327;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Rough set approach to time preferences under uncertainty", in P. Amenta, L. D'Ambra, M. Squillante, A. Ventre (eds.), *Metodi, modelli e tecnologie dell'informazione a supporto delle decisioni*, Franco Angeli, Milano, 2006, pp. 57-74;
- S GRECO, B MATARAZZO., R SLOWINSKI, "Dominance-based Rough Set Approach to Case-Based Reasoning", In: V.TORRA, Y. NARUKAWA, A.VALLS, J. DOMINGO-FERRER EDS. *Modelling Decisions for Artificial Intelligence* Springer, Berlin 2006.,pp. 7-18;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Customer satisfaction analysis based on rough set approach", *Zeitschrift für Betriebswirtschaft*, Gabler Verlag, Wiesbaden, N.3, 2007, pp. 325-339;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Dominance-based rough set approach as a proper way of handling graduality in rough set theory", in J. Peters, A. Skowron, V. W. Marek, E. Orłowska, R. Slowinski, W. Ziarko (eds.), *Transaction on Rough Sets VII*, Springer, Berlin, 2007, pp. 36-52;
- S, GRECO, B MATARAZZO., R. SLOWISNKI, "Dominance-based rough set approach to reasoning about ordinal data", In *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)* 4585 LNAI, 2007, pp- 5-11;
- S. GRECO, B. MATARAZZO, R. SLOWINSKI, "An Algebraic Structure for Dominance-based Rough Set Approach", In: *Proc. 3rd Internat. Conference on Rough Sets and Knowledge Technology (RSKT 2008)*, LNAI, Springer-Verlag, Berlin, 2008, to appear.

S GRECO, B. MATARAZZO, R. SLOWISNKI, "Case-based reasoning using gradual rules induced from dominance-based rough approximations", In: Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) 5009 LNAI, 2008, pp. 268-275;

S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Dominance-based rough set approach and bipolar abstract rough approximation spaces", In: Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) 5306 LNAI, 2008, pp. 31-40. doi:[10.1007/978-3-540-88425-5-4](https://doi.org/10.1007/978-3-540-88425-5-4);

S. GRECO, B. MATARAZZO, R. SLOWINSKI, "Dominance-Based Rough Set Approach to Interactive Multiobjective Optimization" In: J. Branle, K. Deb, K. Miettinen, R. Slowinski (Eds.) Multiobjective Optimization, Interactive and Evolutionary Approaches [outcome of Dagstuhl seminars]. Lecture Notes in Computer Science 5252, Springer, 2008, pp. 121-155, ISBN 978-3-540-88907-6;

GRECO S, MATARAZZO B., SLOWINSKI R. (2008). Algebraic structures for dominance-based rough set approach. In: -. Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics) 5009 LNAI. (pp. 252-259). doi:[10.1007/978-3-540-79721-0_37](https://doi.org/10.1007/978-3-540-79721-0_37).

GRECO S, MATARAZZO B., SLOWINSKI R. (2008). Fuzzy set extensions of the dominance-based rough set approach. In: IN H.BUSTINCE, F.HERRERA AND J.MONTERO EDS. Fuzzy Sets and Their Extensions: Representation, Aggregation and Models. Studies in Fuzziness and Soft Computing. (pp. 239-261). BERLIN: SPRINGER VERLAG

GRECO S, MATARAZZO B., SLOWINSKI R. (2008). Parameterized rough set model using rough membership and Bayesian confirmation measures. INTERNATIONAL JOURNAL OF APPROXIMATE REASONING. vol. 49(2), pp. 285-300 ISSN: 0888-613X. doi:[10.1016/j.ijar.2007.05.018](https://doi.org/10.1016/j.ijar.2007.05.018).

CONSOLI S, MATARAZZO B., PAPPALARDO N. (2008). Operating rules of an irrigation purposes reservoir using multi-objective optimization. WATER RESOURCES MANAGEMENT. vol. 22(5), pp. 551-564 ISSN: 0920-4741. doi:[10.1007/s11269-007-9177-9](https://doi.org/10.1007/s11269-007-9177-9).

ANGILELLA S, GRECO S, MATARAZZO B. (2009). Non-additive Robust Ordinal Regression: a multiple criteria decision model based on the Choquet integral. EUROPEAN JOURNAL OF OPERATIONAL RESEARCH. ISSN: 0377-2217. doi:[10.1016/j.ejor.2009.02.023](https://doi.org/10.1016/j.ejor.2009.02.023).

GRECO S, MATARAZZO B., SLOWINSKI R., ZANAKIS S. (2009). Global investing risk: a case study of knowledge assessment via rough sets, ANNALS OF OPERATIONAL RESEARCH, doi [10.1007/s10479-009-0542-3](https://doi.org/10.1007/s10479-009-0542-3).

GRECO S, MATARAZZO B., SLOWINSKI R. (2009). Dominance-based Rough Set Approach to decision under uncertainty and time preference, ANNALS OF OPERATIONAL RESEARCH, doi [10.1007/s10479-009-0566-8](https://doi.org/10.1007/s10479-009-0566-8).