

Curriculum Vitae

Personal information

First name(s) / Surname(s) **Simona Panunzi**

Address(es) Home: Via dell'Assiolo 31, 00169, Rome; Office: CNR, IASI- Istituto di Analisi dei Sistemi ed Informatica "Antonio Ruberti" – UOS GEMELLI of CNR, Largo A. Gemelli, 8, 00168, Rome

Telephone(s) Mobile: (+39) 3331872732

E-mail simona.panunzi@biomatematica.it, simona.panunzi@iasi.cnr.it

Nationality Italian

Date of birth 05/06/1975

Gender F

Occupational field Mathematical modelling – Statistics – Glucose/Insulin

Work experience

Dates	01/02/2010 - present
Occupation or position held	Tenured Senior Researcher
Main activities and responsibilities	Research activity - Responsible of the Biomathematics Laboratory of the CNR-IASI - Responsible for the project "Pathophysiology and mathematical modelling in biomedicine" of the project area "Applied Mathematics" at CNR-IASI
Name and address of employer	CNR, Consiglio Nazionale delle Ricerche, IASI- Istituto di Analisi dei Sistemi ed Informatica "Antonio Ruberti", Rome - Italy
Type of business or sector	Public Research Institution

Dates	01/03/2006- 31/01/2010
Occupation or position held	Researcher with a fixed – term contract
Main activities and responsibilities	Research activity
Name and address of employer	CNR, Consiglio Nazionale delle Ricerche, IASI- Istituto di Analisi dei Sistemi ed Informatica "Antonio Ruberti", Rome - Italy
Type of business or sector	Public Research Institution

Dates	01/02/2002 - 1/03/2006
Occupation or position held	Doctoral student at the University La Sapienza in collaboration with CNR-IASI
Main activities and responsibilities	Research activity
Name and address of employer	Dipartimento di Statistica, Probabilità e Statistiche Applicate, University of Rome "La Sapienza"
Type of business or sector	Public University

Dates	31/03/2003 - 24/07/2005
Occupation or position held	External professional collaboration
Main activities and responsibilities	Research activity and development of a Web application for remote data entry
Name and address of employer	CNR, Consiglio Nazionale delle Ricerche, IASI- Istituto di Analisi dei Sistemi ed Informatica "Antonio Ruberti", Rome - Italy
Type of business or sector	Public Research Institution

Dates	01/10/2001 - 30/11/2002
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Occupation or position held	Scholarship for graduates
Main activities and responsibilities	Research activity
Name and address of employer	CNR, Consiglio Nazionale delle Ricerche, IASI- Istituto di Analisi dei Sistemi ed Informatica "Antonio Ruberti", Rome - Italy
Type of business or sector	Public Research Institution
Dates	09/1995 – 06/1996 and 09/1996 – 06/1997
Occupation or position held	University co-operation scholarship
Main activities and responsibilities	Data management
Name and address of employer	Centro di Calcolo didattico informatico", "La Sapienza" University
Type of business or sector	Public University

Education and training

Dates	09/03/2009
Title of qualification awarded	Ph.D. in Statistics
Principal subjects/occupational skills covered	Formulation and statistical validation of a new mathematical model for the Glucose/Insulin system
Name and type of organisation providing education and training	Dipartimento di Statistica, Probabilità e Statistiche Applicate, University of Rome "La Sapienza"
Level in national or international classification	Ph.D
Dates	06/12/2000
Title of qualification awarded	Degree in Statistics
Principal subjects/occupational skills covered	estimation and interpretation of attributable risk in health research
Name and type of organisation providing education and training	Dipartimento di Statistica, Probabilità e Statistiche Applicate, University of Rome "La Sapienza"
Level in national or international classification	MSc

Personal skills and competences

Mother tongue(s) Italian

Other language(s)

Self-assessment	Understanding		Speaking		Writing
<i>European level (*)</i>	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	C2

(*) [*Common European Framework of Reference for Languages*](#)

Organizational skills and competences Excellent ability to work in a team and to collaborate with experts from different fields.

Scientific Responsible from the CNR side of the Project PR FESR LAZIO 2021-2027 Avviso pubblico “Riposizionamento competitivo RSI di cui alla Det. n. G18823 del 28/12/2022 – Ambito 1 “Scienze della Vita”: Micobatterio Tubercolosi and resistance System for fast identification (MITUS)

Scientific Responsible from the CNR side of the Project: Piano Nazionale della Ricerca Militare (PNRM). – Avvio delle fasi successive dei progetti in corso di svolgimento. Progetto n. a2018.084 con acronimo: “ABRAN – Analisi del Biofilm e Resistenza antibiotica in pazienti neurolesi”. Fase 2 di 2. CIG 9782923373

Principal investigator of the PNRR– Progetto di “Digital Driven Diagnostics, prognostics and therapeutics for sustainable Health care” D3-4-Health

Horizon 2020: Scientific Coordinator from the CNR side and Work Package leader in the H2020-SU-SEC-2018-2019-2020 (Security) Search&Rescue project: Emerging technologies for the Early location of Entrapped victims under Collapsed Structures and Advanced Wearables for risk assessment and First Responders Safety in SAR operations

Organization of International Biomathematics Summer Schools:
Member of the Management and of the Organization Committee of the Biomathematics ESMTB Summer School 2019, Modelling in Marine Ecology , Isola delle Femmine (PA) Sicily (Italy, 8-21 September 2019)
Member of the Organization Committee of the Biomathematics ESMTB Summer School “Parameter Estimation in Physiological Models”, LIPARI (Italy, 13-26 September 2009)
Member of the Organization Committee of the Biomathematics ESMTB Summer School Dynamical Systems in Physiology and Medicine, ”URBINO (Italy, 8-19 July 2002)

Organization of national Workshops:
Organization of The Second CISAS Biomathematics Workshop - 24 October 2019
IBIM CNR Palermo Istituto di Biomedicina ed Immunologia Molecolare "Alberto Monroy"
Organization of The First CISAS Biomathematics Workshop - 12 October 2018
IBIM CNR Palermo Istituto di Biomedicina ed Immunologia Molecolare "Alberto Monroy"

Technical skills and competences Proficient with Matlab, R programming, SPSS, SAS, S-Plus.
Competent in HTML and ASP programming

Other skills and competences Mathematical model development and their implementation; Statistical data analysis
Drafting of project proposal and deliverables in the framework of funded European projects.

Research interests: Modelling in physiology with particular interest in Glucose/Insulin metabolism, Parameter estimation techniques (classical and Bayesian), Statistical data analysis of clinical protocols

Cake designer

Additional information <https://publons.com/wos-op/researcher/3835150/simona-panunzi/>

Teaching Activity 25/01/2008 - 02/02/2008 for a total of 16 hours- Professor of Statistics at the Master Program in “Optimization Methods and Data Mining”, University of L’Aquila

2022 for a total of 10 - Adjunct Professor of Informatics at the School of Medicine and Surgery Degree programme in SCIENZA DELL'ALIMENTAZIONE, Università Cattolica del sacro Cuore, Rome

Ph.D. and MSc students	Scientific responsible of 2 Post-Doc. Students and of 3 MSc students in Biomedical Engineering and Statistics
Editorial Boards	2008 - Associate Editor (Statistics) for the Intensive Care Medicine journal
Participation in Scientific Projects	“Nutri-Ava (Nutrizione Funzionale per Avannotti) attraverso la selezione di ceppi di microalghe”, approvato con DDG n. 227/Pesca del 10/05/2023; a valere sulla Mis. 2.49 del PO FEAMP SICILIA 2014-2020 - Codice CUP G78H23000350009” 2020 – 2021: Participation in the MoSES Project “Modeling Shock in the Experimental Setting” financed by the Segretariato Generale del Ministero della Difesa. . Role: modeling and statistical data analysis 2016 – 2021: Participation in the CISAS Project–CIPE(2016-2021) Centro Internazionale di Studi Avanzati su Ambiente, ecosistema e Salute umana. Role: modeling and statistical data analysis 2013-2016: Participation in the 2013 "FP7-SEC-2013 IMPRESS Improving Preparedness and Response of hEalth Services in major criseS” (Health Emergency Management decision support system). Role: mathematical modelling of the physiology of the victim and DSS development; statistical assessment of the results 2013 Participation in the "FP7-ICT-2011 COMMODITY12 COntinuous Multi-parametric and Multi-layered analysis Of DIabetes TYpe 1 & 2 for enhanced care of the diabetic patient”. Role: clinical trial assessment and statistical data analysis 2008-2011: Participation in the "FP7-SEC-2007-1-217855 SICMA Simulation of Crisis Management Activities", FP7 Security: Intelligent Decision Support .Role: modelling of the victim physiology
Bibliometric indicators	Papers on International Journals: 109 (WOS) H-index: 30 (WOS)
Articles in international journals with Impact Factor	

1. A. Borri, F. Cacace, A. D. Gaetano, M. Pompa and S. Panunzi, "Optimal Periodic Impulsive Strategies in Glycemic Control," in *IEEE Transactions on Control Systems Technology*, doi: 10.1109/TCST.2024.3398288.
2. Marcello Pompa, Andrea De Gaetano, Alessandro Borri, Antonella Farsetti, Simona Nanni, Alfredo Pontecorvi, Simona Panunzi, A physiological mathematical model of the human thyroid, *Journal of Computational Science*, Volume 76, 2024, 102236, ISSN 1877-7503, <https://doi.org/10.1016/j.jocs.2024.102236>.
3. M. Pompa, S. Panunzi, A. Borri and A. D. Gaetano, "An Agent-Based Model of Glioblastoma Infiltration," 2023 IEEE 23rd International Symposium on Computational Intelligence and Informatics (CINTI), Budapest, Hungary, 2023, pp. 383-390, doi: 10.1109/CINTI59972.2023.10382099.
4. Pompa, M.; Cerasa, A.; Panunzi, S.; De Gaetano, A. HAPC Model of Crowd Behavior during Crises. *Mathematics* 2023, 11, 2711. <https://doi.org/10.3390/math11122711>
5. Simona Panunzi, Alessandro Borri, Laura D'Orsi, Andrea De Gaetano: Order estimation for a fractional Brownian motion model of glucose control. *Commun. Nonlinear Sci. Numer. Simul.* 127: 107554 (2023)
6. Caprino P, Giambusso M, Sacchetti F, Potenza AE, Pastena D, Panunzi S, Piergentili I, Sofo L. Risk factors and outcomes of restorative proctocolectomy with ileal pouch-anal anastomosis for ulcerative colitis. Retrospective study of 75 single center cases. *Eur Rev Med Pharmacol Sci.* 2023 Mar;27(5):1945-1953. doi: 10.26355/eurev_202303_31559. PMID: 36930489.
7. Borrello A, Agnes A, Panunzi S, Piergentili I, Rossetto O, Fabris F, Magalini S, Gui D. Botulinum toxin infusion into the mesenteric artery has selective action on peristalsis in a rat model: experimental research. *Eur Rev Med Pharmacol Sci.* 2023 Apr;27(7):3171-3180. doi: 10.26355/eurev_202304_31951. PMID: 37070920.
8. Drago G, Ruggieri S, Sprovieri M, Rizzo G, Colombo P, Giosuè C, Quinci E, Traina A, Gastaldelli A, Cibella F, Panunzi S. Exposure profiles in pregnant women from a birth cohort in a highly contaminated area of southern Italy. *Sci Rep.* 2023 Sep 8;13(1):14815. doi: 10.1038/s41598-023-41865-0. PMID: 37684286; PMCID: PMC10491776.
9. Panunzi S, Lucca LF, De Tanti A, Cava F, Romoli A, Formisano R, Scarponi F, Estraneo A, Frattini D, Tonin P, Piergentili I, Pioggia G, De Gaetano A, Cerasa A. Modeling outcome trajectories in patients with acquired brain injury using a non-linear dynamic evolution approach. *Sci Rep.* 2023 Apr 18;13(1):6295. doi: 10.1038/s41598-023-33560-x. PMID: 37072538; PMCID: PMC10113248.
10. Mongelli A, Panunzi S, Nesta M, Gottardi Zamperla M, Atlante S, Barbi V, Mongiardini V, Ferraro F, De Martino S, Cis L, Re A, Maltese S, Bachetti T, La Rovere MT, Martelli F, Pesce M, Nanni S, Massetti M, Pontecorvi A, Farsetti A, Gaetano C. Distinguishable DNA methylation defines a cardiac-specific epigenetic clock. *Clin Epigenetics.* 2023 Mar 29;15(1):53. doi: 10.1186/s13148-023-01467-z. PMID: 36991505; PMCID: PMC10053964.
11. S Panunzi, A Borri, L D'Orsi, A De Gaetano. Order estimation for a fractional Brownian motion model of glucose control. *Communications in Nonlinear Science and Numerical Simulation* 127, 107554, 2023
12. Verrastro O, Panunzi S, Castagneto-Gissey L, De Gaetano A, Lembo E, Capristo E, Guidone C, Angelini G, Pennestrì F, Sessa L, Vecchio FM, Riccardi L, Zocco MA, Boskoski I, Casella-Mariolo JR, Marini P, Pompili M, Casella G, Fiori E, Rubino F, Bornstein SR, Raffaelli M, Mingrone G. Bariatric-metabolic surgery versus lifestyle intervention plus best medical care in non-alcoholic steatohepatitis (BRAVES): a multicentre, open-label, randomised trial. *Lancet.* 2023 May 27;401(10390):1786-1797. doi: 10.1016/S0140-6736(23)00634-7. Epub 2023 Apr 21. PMID: 37088093.
13. Ruggieri S, Drago G, Panunzi S, Rizzo G, Tavormina EE, Maltese S, Cibella F. The Influence of Sociodemographic Factors, Lifestyle, and Risk Perception on Dietary Patterns in Pregnant Women Living in Highly Contaminated Areas: Data from the NEHO Birth Cohort. *Nutrients.* 2022 Aug 25;14(17):3489. doi: 10.3390/nu14173489. PMID: 36079747; PMCID: PMC9458243.
14. Panunzi S, De Gaetano A. A modelling approach to hepatic glucose production estimation, *PLOS ONE*, 2022, <https://doi.org/10.1371/journal.pone.0278837>
15. Panunzi S, Gaz C, Cibella F., De Gaetano A. Validation of a simplified-geometry model of inhaled formoterol pharmacodynamics in asthmatic patients *Frontiers in Physiology*, 13, 2022

16. Angelini G, Panunzi S, Castagneto-Gissey L, Pellicanò F, De Gaetano A, Pompili M, Riccardi L, Gargovich M, Raffaelli M, Ciccoritti L, Verrastro O, Russo MF, Vecchio FM, Casella G, Casella-Mariolo J, Papa L, Marini PL, Rubino F, le Roux CW, Bornstein S, Mingrone G. Accurate liquid biopsy for the diagnosis of non-alcoholic steatohepatitis and liver fibrosis. *Gut*. 2022. doi: 10.1136/gutjnl-2022-327498
17. Pompa, M; Panunzi, S; Borri, A; De Gaetano, A. A comparison among three maximal mathematical models of the glucose-insulin system. 2021. <https://doi.org/10.1371/journal.pone.0257789>
18. Panunzi, S., Maltese, S., Verrastro, O., Labbate, L., De Gaetano, A., Pompili, M., Capristo, E., Bornstein, S. R., Mingrone, G., Pioglitazone and bariatric surgery are the most effective treatments for non-alcoholic steatohepatitis: A hierarchical network meta-analysis,, 2021, *Diabetes Obes Metab.*2021;23:980–990
19. Ruggieri S, Maltese S, Drago G, Cibella F, Panunzi S. The Neonatal Environment and Health Outcomes (NEHO) Birth Cohort Study: Behavioral and Socioeconomic Characteristics and Drop-Out Rate from a Longitudinal Birth Cohort in Three Industrially Contaminated Sites in Southern Italy. *Int J Environ Res Public Health*. 2021 Jan 30;18(3):1252. doi: 10.3390/ijerph18031252. PMID: 33573257; PMCID: PMC7908468.
20. Panunzi S, Maltese S, De Gaetano A, Capristo E, Bornstein SR, Mingrone G. Comparative efficacy of different weight loss treatments on knee osteoarthritis: A network meta-analysis. *Obes Rev*. 2021 Aug;22(8):e13230. doi: 10.1111/obr.13230. Epub 2021 Apr 15. PMID: 33855769.
21. Mingrone G, Panunzi S, De Gaetano A, Guidone C, Iaconelli A, Capristo E, Chamseddine G, Bornstein SR, Rubino F. Metabolic surgery versus conventional medical therapy in patients with type 2 diabetes: 10-year follow-up of an open-label, single-centre, randomised controlled trial. *Lancet*. 2021;397(10271):293-304. doi: 10.1016/S0140-6736(20)32649-0.
22. Fabio Cibella, Simona Panunzi, Valerio Cusimano, Andrea De Gaetano, Decision support for medical disasters: Evaluation of the IMPRESS system in the live Palermo demo, *International Journal of Disaster Risk Reduction*, Volume 50, 2020, 101695, ISSN 2212-4209, <https://doi.org/10.1016/j.ijdr.2020.101695>.
23. Nanni S, Aiello A, Salis C, Re A, Cencioni C, Bacci L, Pierconti F, Pinto F, Ripoli C, Ostano P, Baroni S, Lazzarino G, Tavazzi B, Pugliese D, Bassi P, Grassi C, Panunzi S, Chiorino G, Pontecorvi A, Gaetano C, Farsetti A. Metabolic Reprogramming by Malat1 Depletion in Prostate Cancer. *Cancers (Basel)*. 2020 Dec 22;13(1):15. doi: 10.3390/cancers13010015. PMID: 33375130; PMCID: PMC7801945.
24. Ruggieri S, Maltese S, Drago G, Panunzi S, Cibella F, Bianchi F, Minichilli F, Cori L. Measuring Risk Perception in Pregnant Women in Heavily Polluted Areas: A New Methodological Approach from the NEHO Birth Cohort. *Int J Environ Res Public Health*. 2021 Oct 11;18(20):10616. doi: 10.3390/ijerph182010616. PMID: 34682362; PMCID: PMC8536087.
25. Pellicanò F, D'Orsi L, De Gaetano A, Panunzi S. A population approach for the estimation of methylmercury Toxicokinetics in red mullets. *Toxicol Appl Pharmacol*. 2021 Oct 1;428:115679. doi: 10.1016/j.taap.2021.115679. Epub 2021 Aug 14. PMID: 34400196.
26. Panunzi S., Pompa M., Borri A., Piemonte V., De Gaetano A. A revised Sorensen model: simulating glycemic and insulinemic response to oral and intra-venous glucose load. *PLOS NE*, 2020 <https://doi.org/10.1371/journal.pone.0237215>
27. Mingrone, G., Panunzi, S., De Gaetano, A., Ahlin, S., Spuntarelli, V., Bondia-Pons, I., Barbieri, C., Capristo, E., Gastaldelli, A., Nolan, J.J. Insulin sensitivity depends on the route of glucose administration (2020) *Diabetologia*, 63 (7), pp. 1382-1395.
28. Di Ferdinando, M., Pepe, P., Palumbo, P., Panunzi, S., De Gaetano, A. Semiglobal Sampled-Data Dynamic Output Feedback Controller for the Glucose-Insulin System (2020) *IEEE Transactions on Control Systems Technology*, 28 (1), art. no. 8567971, pp. 16-32.
29. Ahlin, S., Manco, M., Panunzi, S., Verrastro, O., Giannetti, G., Prete, A., Guidone, C., Berardino, A.D.M., Viglietta, L., Ferravante, A., Mingrone, G., Mormile, F., Capristo, E., Tarantino, G. A new sensitive and accurate model to predict moderate to severe obstructive sleep apnea in patients with obesity (2019) *Medicine (United States)*, 98 (32), art. no. e16687

30. De Gaetano, A., Gaz, C., Panunzi, S. Consistency of compact and extended models of glucose-insulin homeostasis: The role of variable pancreatic reserve (2019) PLoS ONE, 14 (2), art. no. e0211331
31. Debédat, J., Sokolovska, N., Coupaye, M., Panunzi, S., Chakaroun, R., Genser, L., De Turenne, G., Bouillot, J.-L., Poitou, C., Oppert, J.-M., Blüher, M., Stumvoll, M., Mingrone, G., Ledoux, S., Zucker, J.-D., Clément, K., Aron-Wisnewsky, J. Long-term Relapse of Type 2 Diabetes After Roux-en-Y Gastric Bypass: Prediction and clinical relevance (2018) Diabetes Care, 41 (10), pp. 2086-2095.
32. Capristo, E., Panunzi, S., De Gaetano, A., Spuntarelli, V., Bellantone, R., Giustacchini, P., Birkenfeld, A.L., Amiel, S., Bornstein, S.R., Raffaelli, M., Mingrone, G. Incidence of Hypoglycemia after Gastric Bypass vs Sleeve Gastrectomy: A Randomized Trial (2018) Journal of Clinical Endocrinology and Metabolism, 103 (6), pp. 2136-2146.
33. Capristo, E., Panunzi, S., De Gaetano, A., Raffaelli, M., Guidone, C., Iaconelli, A., L'Abbate, L., Birkenfeld, A.L., Bellantone, R., Bornstein, S.R., Mingrone, G. Intensive lifestyle modifications with or without liraglutide 3 mg vs. sleeve gastrectomy: A three-arm non-randomised, controlled, pilot study (2018) Diabetes and Metabolism, 44 (3), pp. 235-242.
34. Agnes, A., Lirosi, M.C., Panunzi, S., Santocchi, P., Persiani, R., D'Ugo, D. The prognostic role of perioperative allogeneic blood transfusions in gastric cancer patients undergoing curative resection: A systematic review and meta-analysis of non-randomized, adjusted studies (2018) European Journal of Surgical Oncology, 44 (4), pp. 404-419.
35. Borri, A., Cacace, F., De Gaetano, A., Germani, A., Manes, C., Palumbo, P., Panunzi, S., Pepe, P. Luenberger-Like Observers for Nonlinear Time-Delay Systems with Application to the Artificial Pancreas: The Attainment of Good Performance (2017) IEEE Control Systems, 37 (4), art. no. 7982890, pp. 33-49.
36. Gandolfi, S., Auquit-Auckbur, I., Panunzi, S., Mici, E., Grolleau, J.-L., Chaput, B. Validation of the French version of the Burn Specific Health Scale-Brief (BSHS-B) questionnaire (2016) Burns, 42 (7), pp. 1573-1580.
37. Borri, A., Panunzi, S., Brancaleoni, R., Gui, D., Magalini, S., Gaz, C.R., Gaetano, A.D. Simulation of Trauma Incidents: Modelling the Evolution of Patients and Resources (2016) Journal of Medical Systems, 40 (11), art. no. 234
38. Borri, A., Panunzi, S., De Gaetano, A. A glycemia-structured population model (2016) Journal of Mathematical Biology, 73 (1), pp. 39-62.
39. Yokrattanasak, J., De Gaetano, A., Panunzi, S., Satiracoo, P., Lawton, W.M., Lenbury, Y. A simple, realistic stochastic model of Gastric Emptying (2016) PLoS ONE, 11 (4), art. no. e0153297
40. Panunzi, S., Carlsson, L., De Gaetano, A., Peltonen, M., Rice, T., Sjöström, L., Mingrone, G., Dixon, J.B. Determinants of Diabetes Remission and Glycemic Control after Bariatric Surgery (2016) Diabetes Care, 39 (1), pp. 166-174.
41. De Gaetano, A., Gaz, C., Palumbo, P., Panunzi, S. A unifying organ model of pancreatic insulin secretion (2015) PLoS ONE, 10 (11), art. no. e0142344
42. Mingrone, G., Panunzi, S., De Gaetano, A., Guidone, C., Iaconelli, A., Nanni, G., Castagneto, M., Bornstein, S., Rubino, F. Bariatric-metabolic surgery versus conventional medical treatment in obese patients with type 2 diabetes: 5 Year follow-up of an open-label, single-centre, randomised controlled trial (2015) The Lancet, 386 (9997), pp. 964-973.
43. Panunzi, S., D'Orsi, L., Iacoviello, D., De Gaetano, A. A stochastic delay differential model of cerebral autoregulation (2015) PLoS ONE, 10 (4), art. no. e0118456
44. Cibella, F., Cuttitta, G., Della Maggiore, R., Ruggieri, S., Panunzi, S., De Gaetano, A., Bucchieri, S., Drago, G., Melis, M.R., La Grutta, S., Viegi, G. Effect of indoor nitrogen dioxide on lung function in urban environment (2015) Environmental Research, 138, pp. 8-16.
45. Panunzi, S., De Gaetano, A., Carnicelli, A., Mingrone, G. Predictors of remission of diabetes mellitus in severely obese individuals undergoing bariatric surgery: Do BMI or procedure choice matter? A meta-analysis (2015) Annals of Surgery, 261 (3), pp. 459-467.
46. De Gaetano, A., Panunzi, S., Eliopoulos, D., Hardy, T., Mingrone, G. Mathematical modeling of renal tubular glucose absorption after glucose load (2014) PLoS ONE, 9 (1), art. no. e86963
47. Palumbo, P., Pizzichelli, G., Panunzi, S., Pepe, P., De Gaetano, A. Model-based control of plasma glycemia: Tests on populations of virtual patients (2014) Mathematical Biosciences, 257, pp. 2-10.

48. Magalini, S., Pepe, G., Panunzi, S., De Gaetano, A., Abatini, C., Di Giorgio, A., Foco, M., Gui, D. Observational study on preoperative surgical field disinfection: Povidone-iodine and Chlorhexidine-alcohol (2013) *European Review for Medical and Pharmacological Sciences*, 17 (24), pp. 3367-3375.
49. De Gaetano, A., Panunzi, S., Matone, A., Samson, A., Vrbikova, J., Bendlova, B., Pacini, G. Routine OGTT: A Robust Model Including Incretin Effect for Precise Identification of Insulin Sensitivity and Secretion in a Single Individual (2013) *PLoS ONE*, 8 (8), art. no. e70875
50. Leccesi, L., Panunzi, S., De Gaetano, A., Familiari, P., Iaconelli, A., Guidone, C., Mazzarella, A., Costamagna, G., Mingrone, G. Effects of transoral gastroplasty on glucose homeostasis in obese subjects (2013) *Journal of Clinical Endocrinology and Metabolism*, 98 (5), pp. 1901-1910.
51. Mingrone, G., Panunzi, S., De Gaetano, A., Guidone, C., Raffaelli, M., Callari, C., Lombardi, P.C., Bellantone, R. Protocol for a randomised clinical study comparing the effect of Roux-en-Y gastric bypass and sleeve gastrectomy on reactive hypoglycaemia in morbidly obese subjects (2012) *BMJ Open*, 2 (6), art. no. e002184
52. Gaz, C., Cremona, G., Panunzi, S., Patterson, B., De Gaetano, A. A geometrical approach to the PKPD modelling of inhaled bronchodilators (2012) *Journal of Pharmacokinetics and Pharmacodynamics*, 39 (5), pp. 415-428.
53. Mingrone, G., Panunzi, S., De Gaetano, A., Guidone, C., Iaconelli, A., Leccesi, L., Nanni, G., Pomp, A., Castagneto, M., Ghirlanda, G., Rubino, F. Bariatric surgery versus conventional medical therapy for type 2 diabetes (2012) *New England Journal of Medicine*, 366 (17), pp. 1577-1585.
54. Li, J., Wang, M., de Gaetano, A., Palumbo, P., Panunzi, S. The range of time delay and the global stability of the equilibrium for an IVGTT model (2012) *Mathematical Biosciences*, 235 (2), pp. 128-137.
55. Palumbo, P., Pepe, P., Panunzi, S., De Gaetano, A. Time-Delay Model-Based Control of the Glucose-Insulin System, by Means of a State Observer (2012) *European Journal of Control*, 18 (6), pp. 591-606.
56. Magalini, S., Pepe, G., Panunzi, S., Spada, P.L., De Gaetano, A., Gui, D. An economic evaluation of *Clostridium difficile* infection management in an Italian hospital environment. (2012) *European review for medical and pharmacological sciences*, 16 (15), pp. 2136-2141.
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