

# CURRICULUM VITAE

(Version of March 2015)

**Saltelli Andrea**

[andrea.saltelli@jrc.it](mailto:andrea.saltelli@jrc.it)

<http://www.jrc.cec.eu.int/uasa>



---

## Skills

- Applied statistician, with a steady flow of publications in international disciplinary journals over the last 30 years
- Organisational and managerial skills, capacity to motivate staff, to define and achieve goals, to resolve conflicts and delegate effectively
- Experience of work in international organisations, establishing collaboration among different institutions, organising events, publishing multi-authors works
- Experience of work in a competitive context, with a 50% percentage of staff funded on competitive projects.
- Excellent writing and presenting in English, French, Italian.
- Experience of training Commission staff in impact assessment methodologies.
- Experience of leading a jury for the composition of a reserve list

---

## Personal

*Date of birth:* 26th of August 1953

*Place of birth:* Rome

*Nationality:* Italian

*Telephone (UAB):* +34 935868671

*Mobile:* +39 348 360 11 51

*Residence:* 34 Via del Cairo, Varese (VA),  
I-21100

*Status:* Married, father of two boys aged 19, 21

---

## Education

**1976** Doctor (Italian) degree Cum Laude in Inorganic Chemistry from the Rome University (Italy), first of his cohort. Strong minor in Physics equivalent to a M. Sc. in this field.

---

## Professional Experience

**March 2015-today** Retired from the European Commission is visiting researcher at the Centre for the Study of the Sciences and the Humanities (SVT) - University of Bergen (UIB), and a host at the Institut de Ciència i Tecnologia Ambientals (ICTA) -Universitat Autònoma de Barcelona (UAB).

**2005- February 2015** Head of the Unit of Econometrics and applied statistics, with a staff oscillating between 30 and 50. At the request of the commission services - in particular of the Secretary General, Education and Culture, Internal Market, Research, Information Society, Regional Policy and Enterprise directorates - and in cooperation with international institutes and Member States – the unit has developed and deployed state of the art econometric tools for the analysis and assessment of policies, such as growth and competitiveness, lifelong learning, internal market. The Unit has developed a solid international reputation in the field of developing composite indicators.

The Unit's expertise includes data analysis, construction of domain specific composite indicators, ad hoc statistic and econometric modelling, uncertainty and

global sensitivity analysis.

Continues to publish papers and books on sensitivity analysis and on composite indicators. Cooperates with the OECD on a research activity and a cycle of workshops and conferences on measurements of well being.

- 2002 –2005** Responsible of an activity sheet of the JRC direct research work-programme entitled “Statistic and Econometric tools for economic analysis”. Budget 9 M€ This line included research and support to the European commission services on sensitivity analysis, financial econometrics, short term economic analysis, analysis of the properties of socio-economic indicators and statistic support to the macroeconomic modelling capacity of the European Commission.
- 1999-2002** Responsible of an activity sheet of the JRC direct research work-programme entitled “Statistic Support”. Budget 4M€ The activity focused on official statistics in support to DG ESTAT. This activity involved participation to EUROSTAT task forces, organisation of international conferences, stimulating the participation of national statistical institutes in the research programme of the EC.
- Directed a team of 14 persons in the Applied Statistics Sector. The sector ran the Statistic Support work-schedule and nine different competitive activities among shared cost actions, third party works, exploratory research. The themes were sensitivity analysis, on which the sector is a leader at international level, short-term analysis, financial econometrics, macroeconomic modelling, socio-economic and environmental indicators. Other customers of these activities were the European Investment Bank, DG ECFIN and DG MARKT. Consolidated contacts with DG RTD and with the European Environment Agency. Published in applied statistics journals like *Statistical Science* and *Technometrics*. Organised several international conferences and summer schools on sensitivity analysis.
- 1994-1996** Responsible for the competitive activities of the Environment Institute of the JRC, under the responsibility of its director. Also in charge of the editing of the annual report of the institute for the years 1994-1995. Publishes articles on uncertainty and sensitivity analysis applied to atmospheric processes.
- 1991-1994** At the Environment Institute of the JRC, works on sulphur cycle and its impact on climate, aerosol kinetics, cloud microphysics, chemical kinetics in multiphase systems, and sensitivity analysis.
- 1990** Visiting fellow at the Japanese Japan Atomic Energy Research Institute in the Tokai Mura research establishment to work on sensitivity analysis.
- 1982-1989** Recruited by the JRC, takes the leadership of an activity sheet of JRC work-programme dealing with risk assessment and environmental impact analysis for nuclear waste disposal. Develops the LISA code for the impact of nuclear waste disposals, works on modelling of radionuclide migration, on Monte Carlo methodologies, Uncertainty and Sensitivity Analyses for model output, non-parametric Statistics, multivariate Statistics and Risk Assessment. Runs computer code benchmark, in collaboration with OECD –NEA and organises an Ispra Course on Risk Assessment in Nuclear Waste Management, publishing a volume on the subject.
- 1980-1981** Thanks to a prize from the Italian Nuclear authority, is fellow at the Argonne National Laboratory (Illinois, US). Works on modelling of Carbon transfer in austenitic and ferritic steels in liquid sodium.
- 1977-1979** Fellowship from the Italian Nuclear authority. Works on thermodynamics of the

radionuclides in groundwater, modelling of radionuclide migration between geosphere and biosphere, modelling of austenitic steels in liquid sodium.

**1976** Thesis, later published in a journal, in extraction kinetics, in the context of nuclear fuel reprocessing.

---

## Editorial Board

---

Reliability Engineering and System Safety, Elsevier Science Publisher.

---

## Honours

---

G. Stampacchia prize of the Rome University for the year 1978.

E. Clementel prize of CNEN for the year 1980

1994-1996: Member of the Scientific Committee of the Environment Institute of JRC

2002-2003 Member of the Scientific Committee of the Institute for the Protection and Security of the Citizen, JRC

2002 Andrea Saltelli's sector wins the JRC-IPSC prize for best scientific performance.

2002 Francesca Campolongo, in the same sector, wins the JRC prize for best young scientist.

2004 Michaela Saisana in the same sector wins the JRC best young scientist award.

2005 Wins the JRC best paper award with S. Tarantola, F. Campolongo and M. Ratto

2006 Wins a JRC prize for best support activity.

2014 Gives the Commencement speech at the faculty of Statistics, Berkeley

---

## Selected Publications

---

- Giampietro, M., and Saltelli, A., 2015, The fallacy of evidence based policy, Submitted for a special issue on FUTURES, January 2015.
- Giampietro, M., and Saltelli, A., 2014, Footprints to nowhere, *Ecological Indicators*, **46**, 610–621.
- Giampietro, M., and Saltelli, A., 2014, Footworking in Circles, Reply to Goldfinger et al. (2014) "Footprint Facts and Fallacies: A Response to Giampietro and Saltelli (2014) Footprints to nowhere", *Ecological Indicators*, **46**, 260–263.
- Saisana, M., Saltelli, A., and Lucchese, G., 2014, Potential Lessons for Europe from Key Governance Measures, to appear in: On Governance: The National and International Dimensions of Measuring Governance Effectiveness for Policy Outcomes', edited by Robert I. Rotberg, Centre for International Governance Innovation (CIGI) Editions, Canada.
- Guimarães Pereira, Â., Saltelli, A., 2014, Of stiles and methods, A quest for JRC's identity at times of change, to appear as JRC Technical Report.
- Saltelli, A., and Dragomirescu-Gaina, C., 2014, New Narratives for the European Project, *Working Papers in Technology Governance and Economic Dynamics*, N. 59, The other canon foundation, Norway Tallinn University of Technology, Tallinn, Estonia.
- Saltelli, A., Funtowicz, S., 2014, When all models are wrong: More stringent quality criteria are needed for models used at the science-policy interface, *Issues in Science and Technology*, Winter 2014, 79-85.
- Saltelli, A., van der Sluijs, J., Guimarães Pereira, Â., 2013, Funtowicz, S.O., What do I make of your Latinorum? Sensitivity auditing of mathematical modelling, *International Journal Foresight and Innovation Policy*, **9** (2/3/4), 213–234.
- Paruolo, P., Saisana, A., Saltelli, A., 2013, Ratings and rankings: Voodoo or Science? *Journal Royal Statistical Society A*, **176** (3), 609–634.
- Gardi, C., Jeffery, S. Saltelli, A., 2013, An Estimate of Potential Threats Levels to Soil Biodiversity in EU, 2012, *Global Change Biology*, **19**(5), 1538–1548.

- Saltelli, A., M. Ratto, S. Tarantola and F. Campolongo, 2012 (Perennial Review of the 2005 paper), Sensitivity Analysis for Chemical Models, *Chemical Reviews*, **112** (5), pp PR1–PR21.
- Saisana, M., D’Hombres, B., and Saltelli, A., Ricketty Numbers: Volatility of university rankings and policy implications, 2011, *Research Policy*, 40 165–177.
- Saltelli, A., d’Hombres, B., 2011, Might fairness be the narrative? A Policy Brief, Joint Research Centre, Report EUR 24907 EN – 2011, Luxembourg.
- Saisana, M. and Saltelli, M., 2011, Rankings and ratings: instructions for use, *Hague Journal on the Rule of Law*, **3**, 247-268.
- Saltelli, A., D’Hombres, B., Jesinghaus, J., Manca, A., Mascherini, M., Nardo, M., and Saisana, M., 2011, Indicators for European Union Policies. Business as usual?, *Social Indicators Research*, **102**(2), 197-207.
- Campolongo F, Saltelli A, Cariboni, J, 2011, From screening to quantitative sensitivity analysis. A unified approach, *Computer Physics Communication*. 182 (4), pp. 978-988.
- Saltelli, A., Annoni, P., 2010, How to avoid a perfunctory sensitivity analysis, *Environmental Modeling and Software*, **25**, 1508-1517.
- Saltelli, A., D’Hombres, B., Sensitivity analysis didn't help. A practitioner's critique of the Stern review, 2010, *Global Environmental Change*, **20**, 298-302.
- Saltelli, A., Annoni, P., Azzini, I., Campolongo, F., Ratto, M., Tarantola, S., 2010, Variance based sensitivity analysis of model output. Design and estimator for the total sensitivity index, *Computer Physics Communications*, **181**, 259–270. Saltelli A., 2009, Editorial, Special Issue on Sensitivity Analysis, *Reliability Engineering and System Safety*, **94**, 1133–1134.
- Saltelli, A., Ratto, M., Andres, T., Campolongo, F., Cariboni, J., Gatelli, D. Saisana, M., Tarantola, S., 2008, *Global Sensitivity Analysis. The Primer*, John Wiley & Sons publishers..
- A. Saltelli, 2006, Composite indicators between analysis and advocacy, *Social Indicators Research*, 2007, 81 , 65-77.
- J.C. Helton, R.M. Cooke, M.D. McKay and A. Saltelli, Sensitivity Analysis of Model Output: SAMO, Editorial, 2006, *Reliability Engineering & System Safety*, **91**, (10-11), 1105-1108.
- Andrea Saltelli, Marco Ratto, Stefano Tarantola, Francesca Campolongo, Sensitivity analysis practices: Strategies for model-based inference, 2006, *Reliability Engineering & System Safety*, **91**, (10-11), 1109-1125.
- Saltelli, A., M. Ratto, S. Tarantola and F. Campolongo (2005) Sensitivity Analysis for Chemical Models, *Chemical Reviews*, **105**(7) pp 2811 – 2828.
- Nardo, M. M. Saisana, A. Saltelli and S. Tarantola (EC/JRC), A. Hoffman and E. Giovannini (OECD), Handbook On Constructing Composite Indicators: Methodology And User Guide, OECD Statistics Working Paper JT00188147, STD/DOC(2005)3.
- Saisana M., Saltelli A., Tarantola S. (2005) Uncertainty and Sensitivity analysis techniques as tools for the quality assessment of composite indicators, *Journal of the Royal Statistical Society - A*, **168**(2), 307-323.
- Saltelli A. Tarantola S., Campolongo, F. and Ratto, M., 2004, Sensitivity Analysis in Practice. A Guide to Assessing Scientific Models, John Wiley & Sons publishers.
- Saltelli A. and Funtowicz, S., 2003, The precautionary principle: implications for risk management strategies, *European Journal of Oncology*, 2, 67-80.
- Saltelli A. Tarantola S., 2002, On the relative importance of input factors in mathematical models: safety assessment for nuclear waste disposal, *Journal of American Statistical Association*, **97** (459), 702-709
- Saltelli A., 2002, Making best use of model evaluations to compute sensitivity indices, *Computer Physics Communications*, **145**, 280-297.
- Saltelli A., 2002, Sensitivity Analysis for Importance Assessment, *Risk Analysis*, **22** (3), 1-12.
- Saltelli, A., Tarantola, S. Campolongo, F., 2000, Sensitivity analysis as an ingredient of modelling, *Statistical Science*, **15**(4), 377-395.
- Saltelli, A., Chan, K., Scott, M. Editors, 2000, Sensitivity Analysis, John Wiley & Sons publishers, Probability and Statistics series.
- Saltelli , A., Planas, C., Tarantola, S., Campolongo, F., 1999, The concept of sensitivity with applications to official statistics, *Research in Official Statistics*, **2**, 47-77.

- Saltelli, A., Tarantola S., and Chan K., 1999, A role for sensitivity analysis in presenting the results from MCDA studies to decision makers, *Journal of Multi-criteria Decision Analysis*, **8**, 139-145.
- Saltelli, A., Chan, K., Scott, M. Eds., 1999, Special Issue on sensitivity analysis, *Computer Physics Communications*, **117**. Saltelli, A., Chan, K., Scott, M., Preface, *ibidem*, xi-xiv
- Saltelli, A., 1999, Sensitivity analysis. Could better methods be used?, *Journal of Geophysical Research*, **104**(D3), 3789-3793.
- Saltelli A., Tarantola S., and Chan K., 1999, A quantitative, model independent method for global sensitivity analysis of model output, *Technometrics*, **41**(1), 39-56.
- Saltelli A., Tarantola S., and Chan K., 1998, Presenting the results from model based studies to decision makers: can sensitivity analysis be a defogging agent?, *Risk Analysis*, **18**(6), 799-803.
- Saltelli A., and Bolado R., 1998, An alternative way to compute Fourier Amplitude Sensitivity Test (FAST), *Computational Statistics and Data Analysis*, **26**(4) 445-460.
- Scott, M., and Saltelli A., Editors, 1997, Special issue on sensitivity analysis, *Journal of Statistical Computation and Simulation*, **57**(1-4), 1-364; Scott, M., and Saltelli A., Editorial, *ibidem*.
- Archer, G., Saltelli, A. and Sobol' I. M., 1997, Sensitivity measures, ANOVA like techniques and the use of bootstrap. *Journal of Statistical Computation and Simulation* **58**, 99-120.
- Saltelli A. and Scott, M., 1997, Editors, Special Issue on Sensitivity Analysis of Model Output, *Reliability Engineering and System Safety*, **57**(1), 1-105.
- Homma T., and Saltelli A., 1996, Importance measures in global sensitivity analysis of model output, 1996, *Reliability Engineering and System Safety*, Vol. 52 No. 1 1-17.
- Saltelli, A., 1995, Editor, Annual Report of the Environment Institute of the Joint Research Centre.
- Saltelli, A., Andres T.H., and Homma T., 1995, Sensitivity Analysis of model output. Performance of the Iterated Fractional Factorial Design (IFFD) method, *Computational Statistics and Data Analysis*, **20**, 387-407.
- Saltelli A. and Hjorth J., 1995, Uncertainty and sensitivity analyses of OH-initiated dimethylsulphide (DMS) oxidation kinetics, *Journal of Atmospheric Chemistry*, **21**, 187-221
- Saltelli A., and Sobol' I. M., 1995, Sensitivity analysis for nonlinear mathematical models: numerical experience, *Matematicheskoye Modelirovaniye*, **7**(11) 16-28 (in Russian)
- Saltelli A., Andres T. H. and Homma T., 1993, Some new techniques in sensitivity analysis of model output, *Computational Statistics and Data Analysis*, **15**, 211.
- Raes F., Saltelli A. and Van Dingenen R., 1992, Modelling the dynamics of H<sub>2</sub>SO<sub>4</sub>-H<sub>2</sub>O aerosols. Uncertainty analysis and experimental evaluation, *Journal of Aerosol Science*, **23**(7).
- A. Saltelli, A., and Marivoet, J., 1988, Safety assessment for nuclear waste disposal. Some observations about actual risk calculations, *Radioactive Waste Management and the Nuclear Fuel Cycle*, **9** (4), 1988
- Saltelli, A., Stanners, D.A., and D' Alessandro, M., Editors, 1989, *Risk Analysis in Nuclear Waste Management*, Kluwer, Dodrecht.
- Saltelli, A., and Marivoet, J., 1988, Safety Assessment for Nuclear Waste Disposal. Some observations about actual risk calculations, *Journal of Nuclear Waste Management & the Fuel Cycle*, **9** (4).
- Saltelli, A., and Antonioli, F., 1985, Radioactive waste disposal in clay formation: A systematic approach to the problem of fractures and faults permeability, *Radioactive Waste Management*, **6**(2), 101-120.
- Saltelli, A., and Offermann, P., 1986, About the modelling of advective transport with chemical reaction, *Chemical Engineering Science*, **41** (12).
- Saltelli, A., Natesan, K., and Chopra, O., 1982, An assessment of Carburization-Decarburization Kinetics of Fe-9Cr-Mo Steels in a Sodium Environment, *Journal of Nuclear Materials*, **110**.
- Magini, M., Saltelli, A., Caminiti, R., 1981, Observations on the Structural Characterisation of the Dihydroxo-Octaaquodiiiron (III) Dimer, *Inorganic Chemistry*, **20**.
- Borello, A., Casadio, S., Saltelli, A., and G. Scibona, 1981, Susceptibility to the intergranular corrosion of Alloy 800, *Corrosion NACE*, **37** (9).
- Casadio, S., and Saltelli, A., 1979, About the corrosion mechanism for the stainless steel exposed in high temperature flowing sodium by a computer simulation approach, *Journal of Nuclear Materials*, **87**.

- Danesi, P.R., Chiarizia, R., Pizzichini, M. Saltelli, A., 1978, Transfer rate of K ions from aqueous picrate solutions into 1,2, dichloroethane solutions of the macrocyclic polyether dibenzo-18-crown-6, *Journal of Inorganic and Nuclear Chemistry*, **40**.
  - Danesi, P.R., Chiarizia, R., and Saltelli, A., 1976, Transfer rate of some trivalent cations in the biphasic system HC10 water-dinonylnaphthalenesulfonic acid toluene, *Journal of Inorganic and Nuclear Chemistry*, **38**.
-