

Guy Jonathan Abel

CURRICULUM VITAE

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DETAILS:

Date of Birth:	22nd July 1980	Nationality:	British
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ACADEMIC POSITIONS:

2015-	Professor at the School of Sociology and Political Science, Shanghai University.
2015-	Leader of the International Migration Group at the Asian Demographic Research Institute, Shanghai University.
2017-	Research Scientist at the International Institute for Applied Systems Analysis.
2011-2017	Research Scientist at the Vienna Institute of Demography/Austrian Academy of Sciences.
2011-2012	Research Scientist at the International Institute for Applied Systems Analysis.
2009-2011	Senior Research Fellow at the ESRC Centre for Population Change, University of Southampton.
2009-2011	Senior Research Fellow at the Southampton Statistical Sciences Research Institute.
2007-2009	Research Assistant at the Southampton Statistical Sciences Research Institute.

EDUCATION:

2005-2009	Ph.D., Division of Social Statistics, University of Southampton. Thesis: <i>International migration flow table estimation.</i>
2004-2005	M.Sc. Social Statistics (awarded with Distinction), Division of Social Statistics, University of Southampton. Thesis: <i>Combining census and registration data to estimate detailed elderly migration flows in England and Wales.</i>
2002-2003	M.Sc. Statistics (awarded with Distinction), Institute of Mathematics, Statistics and Actuarial Science, University of Kent. Thesis: <i>Modelling asset return price volatility using the GARCH family of models.</i>
1998-2001	BA (Hons.) Economics & Statistics, University of Exeter.
1996-1998	A Levels: Mathematics (A), Economics (A), Further Mathematics (B), Geography (B) St. Bartholomew's Secondary School, Newbury, Berkshire.

JOURNAL PUBLICATIONS:

- Abel, G.J. (2018). Estimates of global bilateral migration flows by gender between 1960 and 2015. *International Migration Review*. Forthcoming.
- Abel, G.J. and Heo, N. (2018). Subnational gender balances in South Korea. *Environment and Planning A*. Forthcoming.
- Abel, G.J. and Heo, N (2018). Changing internal migration flows patterns in South Korea. *Regional Studies, Regional Science*. 5 (1) 78–80 .
- Qi, W., Abel, G.J., Muttarak, M. and Liu, S. (2017). Circular visualization of China's internal migration flows 2010–2015. *Environment and Planning A*. 49 (11), 2432–2436.
- Grecequet, M., DeWaard, J., Hellmann J.J., and Abel, G.J. (2017). Climate Vulnerability and Human Migration in Global Perspective. *Sustainability* 9 (5), 720
- Abel, G.J., Bakarar, B., K.C., S. and Lutz, W. (2016). Meeting the Sustainable Development Goals leads to lower world population growth. *Proceedings of the National Academy of Sciences*. 113 (50) 14294–14299
- Abel, G.J. (2015). fanplot: An R Package for visualising sequential distributions. *The R Journal*. 7 (2) 15–23.
- Abel, G.J. and Sander, N. (2014). Quantifying global international migration flows. *Science*. 343 (6178) 1520–1522.
- Abel, G.J., Bijak, J., Forster, J.J., Raymer J. and Smith P.W.F. (2013). Integrating uncertainty in time series population forecasts: An illustration using a simple projection model. *Demographic Research*, 29 (43) 1187–1226.
- Abel, G.J., Bijak, J., Findlay, A.M., McCollum, D. and Wiśniowski, A. (2013). Forecasting environmental migration to the United Kingdom: An exploration using Bayesian models. *Population and Environment*, 35 (2) 183–203.
- Abel, G.J. (2013). Estimating global migration flow tables using place of birth data. *Demographic Research*, 28 (18) 505–546.
- Raymer J., Abel, G.J. and Rogers, A. (2012). Does specification matter? Experiments with simple multiregional probabilistic population projections. *Environment and Planning A*, 44 (11) 2664–2686.
- Abel, G.J. (2010). Estimation of international migration flow tables in Europe. *Journal of the Royal Statistical Society Series A (Statistics in Society)*, 173 (4) 797–825.
- Abel, G.J., Bijak, J. and Raymer J. (2010). A comparison of official population projections with Bayesian time series forecasts for England and Wales. *Population Trends*, 141 95–114.
- Raymer J., Abel, G.J. and Smith P.W.F. (2007). Combining census and registration data to estimate detailed elderly migration flows in England and Wales. *Journal of the Royal Statistical Society Series A (Statistics in Society)*, 170 (4) 891–908.

BOOK CHAPTERS:

- Sander, N., Abel, G.J. and Riosmena, F. (2014). The future of international migration. In W. Lutz, B. Butz and S. K.C. (Eds.), *World Population and Human Capital in the 21st Century*, 333-398, Chapter 6. Oxford University Press.

REPORTS:

- Hughes, C., Zagheni, E., Abel, G.J., Wiśniowski, A., Sorichetta, A., Weber, I., Tatem, A.J. (2016). Inferring Migrations: Traditional Methods and New Approaches based on Mobile Phone, Social Media. *Report for European Commission Project #VT/2014/093*.
- Hackett, C. Conner, P., Stonawski, M., Skirbekk, V., Potančoková, M. and Abel, G.J. (2015). The Future of World Religions: Population Growth Projections, 2010-2050. *Pew Forum on Religion & Public Life*.

Hackett, C. Grim, B.J., Stonawski, M., Skirbekk, V., Potančoková, M. and Abel, G.J. (2012). The Global Religious Landscape: A Report on the Size and Distribution of the World's Major Religious Groups as of 2010. *Pew Forum on Religion & Public Life*.

Abel, G.J., Bijak, J., Wiśniowski, A., Findlay, A. and McCollum, D. (2011). MR8: Model specification and results of Bayesian forecasts of total and environmental immigration to the United Kingdom, 2010–2060 *Foresight Future Scenarios 2011*, Government Office for Science, London.

SECTIONS IN PROCEEDINGS:

Abel, G.J., K.C., Samir and Sander, N. (2013). Examining the role of international migration in global population projections. *Joint UNECE/Eurostat Work Session on Population Projections, Rome, Italy, 29-31 October 2013*.

Sander, N., Abel, G.J. and K.C., S., (2013). The impact of alternative assumptions about migration differentials by education on projections of human capital. *Joint UNECE/Eurostat Work Session on Population Projections, Rome, Italy, 29-31 October 2013*.

Abel, G.J., Basten, S., Fuchs, F., Garbero, A., Goujon, A., K.C., S., Pamuk, E., Riosmena, F., Sander, N., Sobotka, T., Striessnig, E. and Zeman, K. (2013). Developing expert-based assumptions on future fertility, mortality, and migration. *Joint UNECE/Eurostat Work Session on Population Projections, Rome, Italy, 29-31 October 2013*.

Abel, G.J., Bijak, J., Forster, J., Raymer J. and Smith P.W.F. (2010). Bayesian population forecasts for England and Wales. *Joint UNECE/Eurostat Work Session on Population Projections, Lisbon, Portugal, 28-30 April 2010*.

Raymer J., Forster, J., Smith P.W.F., Bijak, J., Wiśniowski, A. and Abel, G.J. (2010). The IMEM model for estimating international migration flows in the European Union. *Joint UNECE/Eurostat Work Session on Population Projections, Geneva, Switzerland, 14-16 April 2010*.

Raymer, J. and Abel, G.J. (2008). The MIMOSA model for estimating international migration flows in the European Union. *Joint UNECE/Eurostat Work Session on Migration Statistics, Geneva, Switzerland, 3-5 March 2008*.

WORKING PAPERS:

Sander, N., Abel, G.J., Bauer, R. and Schmidt, J. (2014). Visualising migration flow data with circular plots *Vienna Institute of Demography Working Papers 2/2014*.

Abel, G.J. (2008). Modelling international student migrant tables. *Southampton Statistical Sciences Research Institute (S3RI) Methodology Working Papers, M08/05*.

R SOFTWARE:

PACKAGES:

fanplot *Visualisations of sequential probability distributions.*

<http://cran.r-project.org/web/packages/fanplot/>

migest *Methods for the indirect estimation of bilateral migration.*

<http://cran.r-project.org/web/packages/migest/>

tsbugs *Create time series BUGS models.*

<http://cran.r-project.org/web/packages/tsbugs/>

tsbridge *Calculate normalising constants for Bayesian time series models.*

<http://cran.r-project.org/web/packages/tsbridge/>

INTERACTIVE WEBSITE:

Wittgenstein Centre Data Explorer.

<http://www.oeaw.ac.at/vid/dataexplorer/>

FUNDING & AWARDS:

- 2017** Shanghai University Special Prize for Scientific Achievement.
- 2017** China National 1000 Youth Talent Award.
- 2016** National Science Foundation of China Research Fund for International Young Scientists (¥400,000). Principal Investigator: *The Prediction of Future Migration Patterns for Improved Global Population Projections*.
- 2015** Shanghai 1000 Foreign Expert Award (¥1,000,000).
- 2015** Jubiläumsfonds der Stadt Wien für die Österreichische Akademie der Wissenschaften (€100,000). Principal Investigator: *Combining traditional and emerging big data sources to model population movement patterns*.
- 2011** United Kingdom Government Office for Science Foresight report on “Migration and Global Environmental Change” (£26,490). Co-investigator: *Delphi Survey and Projection of Immigration to the UK with particular reference to Environmental Mobility*.
- 2008** Royal Statistical Society Conference Grant (conference fees and expenses).
- 2007** ESRC Ph.D. Overseas Institutional Visit Allowance (stipend and expenses).
- 2004-2008** ESRC M.Sc. and Ph.D. (1+3) Funding Award (stipend and tuition fees).
- 2002-2003** EPSRC M.Sc. Funding Award (stipend and tuition fees).
- 1999** Dean of the Faculty of Social Sciences Commendation, University of Exeter.

ADVISORY ROLES:

Advisory Board: IOM Migration Research Leaders Syndicate, Applied Spatial Analysis and Policy.

Journal Reviewers: Applied Spatial Analysis and Policy, Demographic Studies (Studia Demograficzne), Demography, Economic Systems, European Journal of Population, International Migration Review, Genus: Journal of Population Sciences, Journal of Economics and Statistics, Historical Methods: A Journal of Quantitative and Interdisciplinary History, Journal of Health, Journal of International Migration and Integration, Journal of Population Ageing, Journal of the Royal Statistical Society: Series A, Population and Development Review, Population and Environment, Population and Nutrition, Population Place and Space, Population Studies, Proceedings of the National Academy of Sciences, Science, Scottish Geographical Journal, Statistical Journal of the IAOS, Sustainability.

Report Reviews: Pew Research Centre, WWForEurope (European Commission).

Funding Reviews: Fundação para a Ciência e Tecnologia (Portugal).

VISITING POSITIONS:

- 2014** Visiting Academic at Australian Demographic & Social Research Institute (ADSRI), Australian National University, Canberra, Australia. One month.
- 2007** Overseas Institutional Visitor at Institute of Statistical Science, Academia Sinica, Taipei, Taiwan R.O.C.. Three months

TEACHING

SHANGHAI UNIVERSITY:

- 2018** 3XS371022 Statistical Methods for Population Studies. *Lecturer*.
- 2017** 3XS371026 Data Science for Population Studies. *Lecturer*.
- 2017** 02095103 Frontiers of Sociology. *Lecturer*.

KOSTAT SUMMER SEMINAR ON POPULATION:

- 2017** Demography with R. *Lecturer.*
2016 Statistical Demography using R. *Lecturer.*

EUROPEAN DOCTORAL SCHOOL:

- 2015-2017** Population Projections. *Lecturer.*

UNIVERSITY OF SOUTHAMPTON:

- 2011** DEMO6016 Population Projections. *Guest Lecturer.*
2009-2010 DEMO2004/3003 Migration. *Guest Lecturer.*
2009-2011 STAT3004 Multivariate Data Analysis. *Lecturer.*
2006 MATH6030 Statistical Computing II. *Demonstration Assistant.*
2006 STAT1003 Introduction to Quantitative Methods. *Examination Marking Coordinator.*
2004-2006 STAT1003 Introduction to Quantitative Methods. *Demonstration Assistant.*

INVITED PRESENTATIONS:

- 2018** University of Queensland, School of Earth and Environmental Science Seminar Series, Brisbane, Australia: *Gender, Education and Marital Status Differentials in Migration.*
2018 Australia National University School of Demography Weekly Seminar, Canberra, Australia: *Gender, Education and Marital Status Differentials in Migration.*
2017 Minnesota Population Centre Seminar Series, University of Minnesota, Minnesota, USA: *Quantifying international migration flows.*
2017 Dipartimento di Metodi e Modelli per l'Economia, il Territorio e la Finanza EDSD Colloquium Series, Sapienza Universit di Roma, Rome, Italy: *Quantifying international migration flows.*
2016 Data and Methods for Modelling Migration Associated with Climate Change, Alliance Program Joint Project, Paris, France: *Quantifying international migration flows.*
2016 Institute of Geographic Sciences and Natural Resources Research Seminar, Chinese Academy of Sciences, Beijing, China: *Quantifying and visualising international migration flows.*
2016 IUSSP Side Meeting on Social Media and Demographic Methods, Washington D.C., USA: *Scientific collaboration networks for papers presented at European Population Conferences.*
2015 Statistical Society of Australia Webinar: *How statisticians uncovered the world's missing migrants.*
2015 Seminários Escola Nacional de Ciências Estatísticas IBGE, Rio de Janeiro, Brazil: *Methods for the indirect estimation of bilateral migration.*
2015 Warsaw School of Economics EDSD Seminar Series, Warsaw, Poland: *Global bilateral migration flows by gender between 1960 and 2010.*
2014 Australian Demographic & Social Research Institute Seminar Series, Canberra, Australia: *Global bilateral migration flows by gender between 1960 and 2010.*
2014 Joint KNOMAD-UN Population Division Seminar on the Role of Migration in Population Models, New York, USA *Quantifying global international migration flows.*
2014 University College Dublin Statistics Seminar Series, Dublin, Republic of Ireland: *Quantifying global international migration flows.*
2014 Vienna Institute of Demography Seminar Series, Vienna, Austria: *Quantifying global international migration flows.*
2014 Inference for Change Point Workshop, Isaac Newton Institute for Mathematical Sciences, Cambridge, United Kingdom: *Volatility in international migration flows of Nordic countries: estimating past trends and lessons for forecasting with uncertainty.*
2011 Integrated Modelling of European Migration Workshop, Chilworth, United Kingdom: *Estimation of international migration flow tables in Europe.*
2010 Vienna Institute of Demography Seminar Series, Vienna, Austria: *Estimation of international migration flow tables in Europe.*

- 2008** Institute of Behavioural Science Colloquia, University of Colorado, Boulder, USA: *Modelling international student migrant tables.*
- 2007** Institute of Statistical Science Seminar Series, Academia Sinica, Taipei, Taiwan R.O.C.: *Estimating spatial structures of Italian interregional migration in the Bayesian paradigm.*

CONFERENCE PRESENTATIONS:

- 2017** IUSSP International Population Conference, Cape Town, South Africa: *Who is moving? Exploring internal migration by gender and education across 58 countries.*
- 2017** IUSSP International Population Conference, Cape Town, South Africa: *International Migration in Europe.*
- 2017** British Society for Population Studies, Liverpool, United Kingdom: *Who is moving? Exploring internal migration by gender and education across 58 countries.*
- 2017** Shanghai Forum, Shanghai, China: *One Belt One Road and International Migration: Quantifying Past Patterns and Future Scenarios.*
- 2017** Population Association of America, Chicago, USA: *Who is moving? Exploring internal migration by gender and education across 58 countries.*
- 2016** Shanghai Population Forum, Shanghai, China: *Quantifying global international migration flows.*
- 2016** Asian Population Forum, Shanghai, China: *International Migration in Asia: Quantifying past, present and future trends.*
- 2016** British Society for Population Studies, Winchester, United Kingdom: *The form and evolution of international migration flow networks.*
- 2016** European Population Conference, Mainz, Germany: *When the well runs dry, when the water gets high: Exploring internal migration due to environmental stress in Latin America, Africa and Asia.*
- 2016** Urbanization and Social Development Forum, Qingdao, China: *Estimation of international migration between urban areas; past, present and future.*
- 2016** Population Association of America, Washington D.C., USA: *The form and evolution of international migration flow networks.*
- 2016** Population Association of America, Washington D.C., USA: *When the well runs dry, when the water gets high: Exploring internal migration due to environmental stress in Americas and Southeast Asia.*
- 2015** British Society for Population Studies, Leeds, United Kingdom: *Long run net migration assumptions and their impact on projected populations.*
- 2015** British Society for Population Studies, Leeds, United Kingdom: *When the well runs dry, when the water gets high: Exploring internal migration due to environmental stress in Americas and Southeast Asia.*
- 2015** World Statistics Congress, Rio de Janeiro, Brazil: *Estimates of global bilateral migration flows by gender between 1960 and 2010.*
- 2015** Population Association of America, San Diego, USA: *Estimates of global bilateral migration flows by gender between 1960 and 2010.*
- 2014** British Society for Population Studies, Winchester, United Kingdom: *Stochastic forecasting methods for total fertility rates in all countries.*
- 2014** Population Association of America, Boston, USA: *Examining the role of international migration in global population projections.*
- 2013** British Society for Population Studies, Swansea, United Kingdom: *Examining the role of international migration in global population projections.*
- 2013** IUSSP International Population Conference, Busan, South Korea: *Estimating global migration flow tables using place of birth data.*
- 2013** Joint UNECE/Eurostat Work Session on Population Projections, Rome, Italy: *Examining the role of international migration in global population projections.*
- 2013** Joint Statistical Meetings, Montreal, Canada: *Volatility in international migration flows of Nordic countries: estimating past trends and lessons for forecasting with uncertainty.*

- 2012** British Society for Population Studies, Nottingham, United Kingdom: *Estimating comparable global foreign born stock tables using the EM algorithm.*
- 2012** Population Association of America, San Francisco, USA: *estimating global migration flow tables using place of birth data.*
- 2010** British Society for Population Studies, Exeter, United Kingdom: *A comparison of official population projections with time series forecasts for England and Wales.*
- 2010** Research Methods Festival, Oxford, United Kingdom: *Modelling the age patterns of demographic events.*
- 2010** European Population Conference, Vienna, Austria: *Bayesian time series models for forecasting population growth in England and Wales.*
- 2010** Joint UNECE/Eurostat Work Session on Population Projections, Lisbon, Portugal: *Bayesian population forecasts for England and Wales.*
- 2009** QMSS 2 Multi-attribute analysis and projection of ethnic populations, Jevnaker, Norway: *A dynamic projection model for the UK population including minorities.*
- 2008** Young Demography Group of the German Association for Demography, Nuremberg, Germany: *Statistical modelling of international migration flow tables.*
- 2008** Royal Statistical Society Conference, Nottingham, United Kingdom: *Harmonization and estimation of missing cells in international migration flow tables.*
- 2008** Joint Statistical Meetings, Denver, USA: *Estimation of international migration flow tables.*
- 2007** Research Students Conference in Probability and Statistics, Glasgow, United Kingdom: *Estimating spatial structures of Italian interregional migration in the Bayesian paradigm.*
- 2007** POPFEST meeting of the British Society for Population Studies, Southampton, United Kingdom: *Combining census and registration data to estimate detailed elderly migration flows in England and Wales.*
- 2006** British Society for Population Studies, Southampton, United Kingdom: *The estimation of elderly migration patterns in England and Wales.*

REFEREES:

Available upon request.