

CONTACT INFORMATION	Address: Grantham Research Institute LSE, Houghton Street London WC2A 2AE U.K.	E-mail: m.sato1@lse.ac.uk Phone: +44 (0)20 7107 5412 Website: personal.lse.ac.uk/SATOM
CURRENT POSITIONS	<b>Assistant Professorial Research Fellow</b> , London School of Economics <b>Deputy Director</b> , ESRC Centre for Climate Change Economics and Policy <b>Programme Leader</b> , Policy Design & Evaluation Theme, Grantham Research Institute on Climate Change and the Environment	2016–present
PREVIOUS POSITIONS	<b>Research Officer</b> (Post doc), Grantham Research Institute, London School of Economics <b>Research Assistant</b> , Faculty of Economics, Cambridge University	2013–2016 2005–2008
VISITING POSITIONS	French Economic Observatory (OFCE), Sciences Po Energy Studies Institute, National University of Singapore MINES ParisTech, PSL Research University, CERN - Centre d'Economie Industrielle	Feb 2020 May-Jun 2019 Aug 2014
EDUCATION	<b>Ph.D. in Environmental Economics</b> , London School of Economics <b>M.Sc. in Environmental and Resource Economics</b> , University College London <b>M.A. Joint Honours in Economics and Chinese</b> , Edinburgh University	2013 2005 2003
PUBLICATIONS - JOURNAL ARTICLES	Google Scholar stats (as of Mar 2020): total citations = 1601, h-index = 16, i-10 index = 18	
	<p>“International and sectoral variation in industrial energy prices 1995 – 2015” (with Gregor Singer, Damien Dussaux and Stefania Lovo), <b>Energy Economics</b>, 78, 235-258, 2019. Data download</p> <p>“The competitiveness impacts of environmental regulation” (with Antoine Dechezleprêtre), <b>Review of Environmental Economics and Policy</b>, 11(2), 183-206, 2017. Reprinted in <i>Robert Stavins (ed.) “Economics of the Environment Selected Readings, Seventh Edition”, Edward Elgar, 2019.</i></p> <p>“Solving the clinker dilemma with hybrid output based allocation” (with Frédéric Branger), <b>Climatic Change</b> 140:483, 2017.</p> <p>“Asymmetric industrial energy prices and international trade” (with Antoine Dechezleprêtre), <b>Energy Economics</b>, 52 S130-141, 2015. Featured in <i>Business Green, The Daily Telegraph, Business Spectator</i> and <i>Blue and Green Tomorrow</i>.</p> <p>“EU ETS, free allocations and activity level thresholds - the devil lies in the details” (with Frédéric Branger, Jean-Pierre Ponsard and Oliver Sartor), <b>Journal of the Association of Environmental and Resource Economics</b>, 2(3), 401-437, 2015.</p> <p>“Sectors under scrutiny - Evaluation of indicators to assess the risk of carbon leakage in the UK and Germany” (with Karsten Neuhoff, Verena Graichen, Katja Schumacher and Felix Matthes), <b>Environmental and Resource Economics</b>, 60(1), 99-124, 2015.</p> <p>“Product level embodied carbon flows in bilateral trade”, <b>Ecological Economics</b>, 105,106-117, 2014.</p> <p>“Embodied carbon in trade: a survey of the empirical literature”, <b>Journal of Economic Surveys</b>, 28(5), 831-861, 2014.</p> <p>“The effects and side-effects of the EU emissions trading scheme” (with Tim Laing, Michael Grubb and Claudia Combetti), <b>Wiley Interdisciplinary Reviews: Climate Change</b>, 5(4), 509-519, 2014.</p> <p>“Who will win the green race? In search of environmental competitiveness and innovation” (with Sam Fankhauser, Alex Bowen, Raphael Calel, Antoine Dechezleprêtre, David Grover and James Rydge), <b>Global Environmental Change</b>, 23(5), 902-913, 2013.</p> <p>“Emissions trading: Lessons learnt from the 1st phase of EU ETS and prospects for the 2nd Phase, an Editorial” (with Regina Betz), <b>Climate Policy</b>, 6(4) 351-360, 2006.</p> <p>“Implications of announced Phase 2 National Allocation Plans for the EU ETS” (with Karsten Neuhoff, Markus Ahman, Regina Betz, Johanna Cludius, Federico Ferrario, Kristina Holmgren, Gabriella Pal, Michael Grubb, Felix Matthes, Karoline Rogge, Joachim Schleich, Jos Sijm, Andreas</p>	

Tuerk, Claudia Kettner and Neil Walker). **Climate Policy**, 6(5) 411-422, 2006.

“Allocation, incentives and distortions: The impact of EU ETS emissions allowance allocations to the electricity sector” (with Karsten Neuhoff and Kim-Keats Martinez), **Climate Policy**. 6(1), 73-91. 2006.

WORKING  
PAPERS

“Are financial markets aligned with climate action? New evidence from the Paris Agreement” (with Tobias Kruse and Myra Mohnen), *GRI Working Paper Series*, No. 333, 2020.

“Green revenues, profitability and market valuation: Evidence from a global firm level dataset” (with Tobias Kruse, Myra Mohnen and Peter Pope), *GRI Working Paper Series*, No. 331, 2020.

“The impacts of energy prices on industrial foreign investment location: evidence from global firm level data” (with Aurélien Saussay), *GRI Working Paper Series*, No. 311, 2018.

**Winner of Young Economist Best Paper from the French Association of Environmental and Resource Economists (FAERE), Aug 2018.**

“Benchmarks for emissions trading –general principles for emissions scope” (with Vera Zipperer and Karsten Neuhoff), *GRI Working Paper Series*, No. 287, 2017.

“Demand for offsetting and insetting in the EU Emissions Trading System” (with Marta Ciszawska and Tim Laing), *GRI Working Paper Series*, No. 237, 2016. Under Review with *Energy Policy*.

BOOK  
CHAPTERS

“Are carbon markets the best way to address climate change?” (with Tim Laing) in Mike Hulme (ed.), *Contemporary Climate Change debates: A Student Primer*, Routledge, 2020.

“Cap and trade in the European Union” (with Ryan Rafaty, Michael Grubb and Raphael Calel) in William Holt (ed.), *Contesting Carbon Policies*, Routledge, Forthcoming.

SELECT  
PAPERS IN  
PROGRESS

“Carbon pricing, compensation schemes, and competitiveness: Lessons from UK manufacturing” (with Elisabeth Isaksen and Piero Basaglia)

“Does climate change pose a risk to competitiveness? - Global firm level evidence” (with Stefania Lovo, Ralf Martin and Antoine Dechezleprêtre)

“Trade in Environmental Services” (with Pia Andres, Damien Dussaux and Arlan Brucal)

“Is there a trade off between dirty imports and home innovation?”(with Damien Dussaux)

SELECT  
POLICY  
PAPERS &  
REPORTS

“Sustainable growth in the UK: Seizing opportunities from technological change and the transition to a low-carbon economy” (with James Rydge, Ralf Martin, Anna Valero, Samuela Bassi, Sandra Bernick, Arlan Brucal, Maria Carvalho, Jamie Hilton, Tobias Kruse, Karlygash Kuralbayeva, Myra Mohnen, Nicholas Stern, and Dimitri Zenghelis), *Special Report*, LSE Growth Commission, Dec 2018.

“Green policies and firms’ competitiveness” (with Antoine Dechezleprêtre), *Issue Paper*, OECD Green Growth and Sustainable Development Forum, November 2018.

“Inclusion of Consumption of carbon intensive materials in emissions trading: An option for carbon pricing post-2020” (with Karsten Neuhoff, Roland Ismer, William Acworth, Andrzej Ancygier, Carolyn Fischer, Manuel Haussner, Hannah-Liisa Kangas, Yong-Gun Kim, Clayton Munnings, Anne Owen, Stefan Pauliuk, Oliver Sartor, Jan Stede, Thomas Sterner, Michael Tervooren, Rud Tusveld, Richard Wood, Xilian Zhang, Lars Zetterberg and Vera Zipperer), *Climate Strategies Report*, June 2016.

“Methods for Evaluating the Performance of Emission Trading Schemes” (with Tim Laing, Simone Cooper and Lixiang Wang), *Climate Strategies Discussion Paper*, November 2015.

“Modernization and innovation in the materials sector – lessons from steel and cement” (with Karsten Neuhoff, Andrzej Ancygier, Manuel Haussner, R. Jean-Pierre Ponssard, Nagore Sabio, Oliver Sartor and Anne Schopp), *Climate Strategies Report*, July 2015.

“The competitiveness impacts of environmental regulation” (with Antoine Dechezleprêtre). *Grantham Research Institute Policy Report*. November 2014. Featured in *The Economist*, *The Sunday Times* and *Business Green*. Blogged in *Climate & Development Knowledge Network* and *LSE Politics and Policy blog*.

“Carbon control Post-2020 in Energy Intensive Industries: The Steel Report” (with Karsten Neuhoff, William Acworth, Andrzej Ancygier, Frédéric Branger, Ian Christmas, Manuel Haussner, Roland Ismer, Arjan van Rooij, Oliver Sartor and Anne Schopp), *Climate Strategies Report*, October 2014.

“Carbon control and competitiveness post-2020: The Cement Report” (with Karsten Neuhoff, Bruno Vanderborght, Andrzej Ancygier, Ayse Tugba Atasoy, Manuel Haussner, Roland Ismer, Benedikt Mack, Jean-Pierre Ponsard, Phillippe Quirion, Arjan van Rooij, Nagore Sabio, Oliver Sartor and Anne Schopp), *Climate Strategies Report*, February 2014.

“Staying with the leaders: Europe’s path to a successful low-carbon economy” (with Karsten Neuhoff, William Acworth, Antoine Dechezleprêtre, Oliver Sartor, Susanne Dröge, Stefan Schleicher and Anne Schopp), *Climate Strategies Report*, February 2014, Featured in *Financial Times*.

“Climate Policy and Industrial Competitiveness: Ten Insights from Europe on the EU Emissions Trading System” (with Michael Grubb, Thomas Brewer, Robert Heilmayr, and Dora Fazekas), *German Marshall Fund Report*, 2009.

“Ten (plus one) insights from the EU Emissions Trading Scheme: with reference to emerging systems in Asia” (with Michael Grubb), *Climate Strategies Report*, November 2009.

“The role of auctions for emissions trading” (with Karsten Neuhoff, Felix Matthes, Regina Betz, Susanne Dröge, Angus Johnston, Mariusz Kudelko, Andreas Löschel, Stéphanie Monjon, Lennart Mohr and Wojciech Suwala), *Climate Strategies Report*, Oct 2008.

“Differentiation and dynamics of EU ETS industrial competitiveness impacts” (with Jean-Charles Hourcade, Karsten Neuhoff, and Damien Demailly), *Climate Strategies Report*, December 2007, Also available as an EPRG Working Paper No. 0704, March 2007.

RESEARCH GRANTS European Commission (H2020-MSCA-RISE), 2019, Global Excellence in Modeling Climate and Energy Policies (GEOCEP) (with 5 other European Institutions), LSE budget €115,000, Co-I  
 Economic and Social Research Council, 2018, Centre for Climate Change Economics and Policy - Transition Phase (2018-2022) Award LSE budget £1,092,822, Co-I  
 Economic and Social Research Council, 2016, Future Research Leaders (2016-2018) £131,095, PI

HONOURS & AWARDS LSE-Sciences Po Faculty Mobility grant (2020)  
 EU Global Excellent in Modelling of Climate and Energy (GEMCLIME) mobility grant (2019)  
 Young Economist Best Paper Prize from the French Association of Environmental and Resource Economists (FAERE), joint with Aurélien Sauusay (2018)  
 Santander Travel Research Fund (2015)  
 Research Student Conference Fund, Geography and Environment Department, LSE (2012)  
 London School of Economics Graduate Scholarship (2011-2012)  
 Economic and Social Research Council, Centre-linked Quota PhD Studentship (2008- 2011)  
 Gaitskell MSc Scholarship, Faculty of Economics, UCL (2004- 2005)  
 Carnegie Travel Scholarship, University of Edinburgh (2002)

TEACHING Guest lecturer, Green Technology and Innovation (MSc), University of Bologna 2019  
 Guest lecturer, Climate Change: Science, Economics and Policy (MSc), LSE 2019  
 Guest lecturer, LIFE SIDE Online course on the EU Emissions Trading System, European University Institute, Florence School of Regulation 2018  
 Doctoral Supervisor, for 2 students on PhD Environmental Economics programme, LSE 2018–present  
 Doctoral Supervisor, for 3 visiting PhD students, Grantham Research Institute, LSE 2015–2018  
 Dissertation supervisor, 'Environmental Economics and Climate Change' and 'Environmental Policy and Regulation (MSc), LSE 2014–present  
 Guest lecturer, Law and the Environment (LLM), LSE 2016–2018  
 Instructor, Executive Masters program on “Energy, Environment and Regulation” Learning Expedition London, Sciences Po (Paris) 2016  
 Instructor, International Carbon Action Partnership (ICAP) Summer Advanced Course on Emissions Trading, (part of EU Commission ETS Summer University) 2015

REFEREING *Journals:* Climate Policy, Ecological Economics, Energy Economics, Energy Journal, Energy Policy, Environment and Development Economics, Environmental and Resource Economics, Journal of Environmental Economics and Management, Journal of Economic Studies, Journal of Environmental Planning and Management, Nature Climate Change  
*Grants:* Economic and Social Research Council, Swiss National Science Foundation, UK Research and Innovation  
*Conference Programme Committee:* European Association of Environmental and Resource Economics Annual conference 2019

PROFESSIONAL Association of Environmental and Resource Economists (since 2013)  
ACTIVITIES European Association of Environmental and Resource Economists (since 2009)  
International Association for Energy Economics (since 2007)

CONSULTANT I have worked as a consultant for the World Bank, WWF, UK Green Economy Policy Commission  
ACTIVITIES (GEPC), Swedish Agency for Growth Policy Analysis (SAGPA), PBL Netherlands Environmental Assessment Agency, United Nations Environment Programme, EBRD, and The European Chemical Industry Council

LANGUAGES Japanese, native; English, fluent; Chinese Mandarin, proficient

SELECT CON- 24th European Association for Environmental and Resource Economics Annual Conference,  
FERENCES/ Manchester, June 2019  
WORKSHOP 6th World Congress of Environmental and Resource Economists, Gothenburg, June 2018  
PRESENTA- 23rd European Association for Environmental and Resource Economics Annual Conference, Greece,  
TIONS June 2019  
International Symposium on Environment Energy & Finance Issues, Paris, May 2017  
Expert Workshop on Environmental Policy Data and Competitiveness, United Nations Environment Programme, Geneva, January 2017  
Climate Annual Conference, Florence School of Regulation, December 2016  
Applied Environmental Economics Conference, The Royal Society, London, March 2016  
Climate Annual Conference, Florence School of Regulation, October 2015  
Association of Environmental and Resource Economists conference, Banff, June 2013  
19th European Association for Environmental and Resource Economics Annual Conference, Prague, June 2012  
5th Atlantic Workshop on Energy and Environmental Economics, A Toxa, June 2012  
International Society for Industrial Ecology Annual Conference, Berkeley, June 2011  
18th European Association for Environmental and Resource Economics Annual Conference, Rome, June 2011  
ENVECON Applied Environmental Economics Conference, The Royal Society, London, February 2011

INVITED ifo Institute Munich and TUM School of Management, Seminar on Energy and Environmental Eco-  
SEMINARS nomics Munich, January 2020  
University of Bayreuth, Economics Research Seminar, Bayreuth, July 2019  
Energy Studies Institute, National University of Singapore, May 2019  
CIRED Environmental Economics Seminar, Paris, March 2019  
LSE Grantham Research Institute workshop, London, January 2018  
VATT Institute for Economics Research / HECER Environmental, Resource and Energy Economics Seminar, Helsinki, May 2017  
UK Department of Energy & Climate Change Analytical Seminar Series, London, May 2016  
Paris Environmental and Energy Economics Seminar, Université Paris 1, March 2015  
OECD Brownbag lunch seminar, Paris, November 2015