

CONTACT INFORMATION	Address: LSE, Houghton Street London WC2A 2AE U.K.	E-mail: m.sato1@lse.ac.uk Website: personal.lse.ac.uk/SATOM
CURRENT POSITIONS	<b>Assistant Professorial Research Fellow</b> , Grantham Research Institute, London School of Economics and Political Science 09/16– <b>Deputy Director</b> , ESRC Centre for Climate Change Economics and Policy 08/18– <b>Advisory Board</b> , ESRC Environmental Social Science Strategic Advisory Group 03/21– <b>DIW Research Fellow</b> , DIW Berlin (the German Institute for Economic Research) 12/21– <b>Co-Editor</b> , Environmental and Resource Economics, Springer 06/22–	
PREVIOUS POSITIONS	<b>Research Officer</b> (Post doc), GRI, London School of Economics 09/13–08/16 <b>Research Assistant</b> , Faculty of Economics, Cambridge University 09/05–08/08	
VISITING POSITIONS	Visiting researcher, French Economic Observatory (OFCE), Sciences Po 02/20 Visiting fellow, Energy Studies Institute, National University of Singapore 05/19–06/19 Visitor, MINES ParisTech, PSL Research University, CERN - Centre d'Economie Industrielle 08/14	
EDUCATION	<b>Ph.D. in Environmental Economics</b> , London School of Economics 2013 <b>M.Sc. in Environmental and Resource Economics</b> , University College London 2005 <b>M.A. Joint Honours in Economics and Chinese</b> , Edinburgh University 2003	
PUBLICATIONS - JOURNAL ARTICLES	Google Scholar stats (as of 05/24): total citations = 3268, h-index = 21, i-10 index = 30 <p>“The impacts of energy prices on industrial foreign investment location: evidence from global firm level data” (with A. Saussay), <b>Journal of Environmental Economics and Management</b>, Forthcoming. <b>Winner of Young Economist Best Paper from the French Association of Environmental and Resource Economists (FAERE)</b>.</p> <p>“Are financial markets aligned with climate action? New evidence from the Paris Agreement” (with T. Kruse and M. Mohnen), <b>Journal of the Association of Environmental and Resource Economics</b>, 11(3), 549–576, 2024.</p> <p>“Quasi-Experimental Evidence on Carbon Pricing” (with K. Vrolijk) <b>World Bank Research Observer</b>, 38(2), 213–248, 2023.</p> <p>“Allocation, allocation, allocation! The political economy of the development of the European Union Emissions Trading System”. (with R. Rafaty, R. Calel and M. Grubb) <b>Wiley Interdisciplinary Reviews: Climate Change</b>, 13(5) 2022.</p> <p>“Carbon Leakage, Consumption, and Trade”. (with M. Grubb, N. Jordan, K. Neuhoﬀ et.al.) <b>Annual Review of Resource Economics</b>, 47(1) 2022.</p> <p>“International and sectoral variation in industrial energy prices 1995 – 2015” (with G. Singer, D. Dussaux and S. Lovo), <b>Energy Economics</b>, 78, 235–258, 2019. Data download</p> <p>“The competitiveness impacts of environmental regulation” (with A. 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 F. Branger), <b>Climatic Change</b> 140:483, 2017.</p> <p>“Asymmetric industrial energy prices and international trade” (with A. 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 F. Branger, J. Ponsard and O. 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 K. Neuhoﬀ, V. Graichen, K. Schumacher and F. Matthes),</p>	

**Environmental and Resource Economics**, 60(1), 99-124, 2015.

“Product level embodied carbon flows in bilateral trade”, **Ecological Economics**, 105,106-117, 2014.

“Embodied carbon in trade: a survey of the empirical literature”,  
**Journal of Economic Surveys**, 28(5), 831-861, 2014.

“The effects and side-effects of the EU emissions trading scheme” (with T. Laing, M. Grubb and C. Comberti), **Wiley Interdisciplinary Reviews: Climate Change**, 5(4), 509-519, 2014.

“Who will win the green race? In search of environmental competitiveness and innovation” (with S. Fankhauser, A. Bowen, R. Cael, A. Dechezleprêtre, D. Grover and J. Rydge),  
**Global Environmental Change**, 23(5), 902-913, 2013.

“Emissions trading: Lessons learnt from the 1st phase of EU ETS and prospects for the 2nd Phase, an Editorial” (with Regina Betz), **Climate Policy**, 6(4) 351-360, 2006.

“Implications of announced Phase 2 National Allocation Plans for the EU ETS” (with K. Neuhoﬀ, M. Ahman, et.al. **Climate Policy**, 6(5) 411-422, 2006.

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

#### WORKING PAPERS

“Impacts of climate litigation on firm value” (w. G. Gostlow, C. Higham, J. Setzer, and F. Venmans). *R&R at Nature Sustainability*. **Winner of Best Paper Award at Global Research Alliance for Sustainable Finance and Investment conference at the Yale School of Management, Aug 2023.**

“Carbon pricing, compensation and competitiveness: lessons from UK manufacturing” (w. P. Basaglia and E. Isaksen). GRI Working Paper Series, No. 406, 2024. Under review.

“Who’s fit for the low-carbon transition? Emerging skills and wage gaps in job ad data” (with A. Saussay and F. Vona), GRI Working Paper Series, No. 381, 2022. Under Review.

“Supporting Solar: The Causal Impact of Subsidies on Domestic Photovoltaic Installations” (with L. Cass and A. Saussay)

“Green revenues, clean innovation and their spillovers: Evidence from global firm level data” (with M. Mohnen and Y. Zheng )

“Industrial Energy Prices and Energy Productivity: The Role of Trade” (with G. Singer)

“This time is different: How Digital and Green Innovations Affect Firms’ Hiring and Emissions” (with A. Saussay and F. Vona)

“Sectoral Alliance for a Just Global Decarbonisation” (with A. Pirlot, K. Neuhoﬀ, R. Ismer, H. van Asselt and K. Biedenkopf)

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

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

#### BOOK CHAPTERS

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

#### SELECT POLICY PAPERS

“Skills and wage gaps in the low-carbon transition: comparing job vacancy data from the US and UK”(with L. Cass, A. Saussay, F. Vona, L. Mercer, and L. O’Kane), *Policy Report*, LSE Grantham Research Institute, January 2023. Featured in *The Guardian*.

“What does an eu carbon border adjustment mechanism mean for the UK?”(with J. Burke, C.Taylor and F. Li), *Policy Report*, LSE Grantham Research Institute, April 2021.

“Does it pay for firms to go green?”(with T. Kruse, J. Burke, M. Mohnen, P. Pope), *Policy Report*, LSE Grantham Research Institute, June 2020.

“Sustainable growth in the UK: Seizing opportunities from technological change and the transition to a low-carbon economy” (with J. Rydge, R. Martin, et.al.), *Special Report*, LSE Growth Commission,

December 2018.

“Green policies and firms’ competitiveness” (with A. 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 K. Neuhoﬀ, R. Ismer, et.al.), *Climate Strategies Report*, June 2016.

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

“Modernization and innovation in the materials sector lessons from steel and cement” (with K. Neuhoﬀ, A. Ancygier et.al.), *Climate Strategies Report*, July 2015.

“The competitiveness impacts of environmental regulation” (with A. 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 K. Neuhoﬀ, W. Acworth et.al.), *Climate Strategies Report*, October 2014.

“Carbon control and competitiveness post-2020: The Cement Report” (with K. Neuhoﬀ, B. Vanderborcht et.al.), *Climate Strategies Report*, February 2014.

“Staying with the leaders: Europe’s path to a successful low-carbon economy” (with K. Neuhoﬀ, W. Acworth et.al.), *Climate Strategies Report*, February 2014, Featured in *Financial Times*.

“Assessing the effectiveness of the EU Emissions Trading Scheme” (with T. Laing, M. Grubb and C. Comberti). *Climate Strategies Report*, February 2012.

#### GRANTS, HONOURS & AWARDS

Economic and Social Research Council, 2023-2027, Centre for Climate Change Economics and Policy Legacy, £100,000, Co-I

Best Paper Prize at the Global Research Alliance on Sustainable Finance and Investment conference, August 2023. joint with G. Gostlow, C. Higham, J. Setzer, and F. Venmans (2023)

ESRC Research to improve UK economic productivity, Productive and Inclusive Net Zero (PRINZ) - Opportunities and barriers in the transition to sustainable and equitable growth, 2022-25, with 4 other Institutions, Total £1,967,054.15, LSE-GRI PI

European Commission (H2020-MSCA-RISE), 2022-2026, Global Excellence in Modelling Climate and Energy Policies (GEOCEP) (with 5 other Institutions), Total €3,036,000, Co-I

JPI Climate, Socially Just and Politically Robust Decarbonisation: A Knowledge Base and Toolkit for Policymakers (Justdecarb), 2021-23, (with 3 other Institutions), Total £1,040,000, LSE PI

LSE-Sciences Po Faculty Mobility grant, 2020

European Commission Horizon2020, EU Global Excellent in Modelling of Climate and Energy (GEM-CLIME), 2016-2022, with multiple partners, Total €3,330,000, LSE PI

Research Council of Norway, PLATform for Open and Nationally accessible climate policy knowledge (PLATON), 2019-2022, LSE share NOK 441,000 LSE PI

Young Economist Best Paper Prize from the French Association of Environmental and Resource Economists (FAERE), joint with A. Sauusay (2018)

Economic and Social Research Council, 2018-2022, Centre for Climate Change Economics and Policy - Transition Phase, LSE budget £1,092,822, Co-I

Economic and Social Research Council, 2016, Future Research Leaders (2016-2018) £131,095, PI

*Graduate and undergraduate*: 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

Doctoral Supervisor, for 2 students on PhD Environmental Economics programme, LSE 2018–

	<p>Doctoral Supervisor, for 5 visiting PhD students, Grantham Research Institute, LSE 2015–</p> <p>Dissertation supervisor, 'Environmental Economics and Climate Change' and 'Environmental Policy and Regulation (MSc), LSE 2014–</p> <p>Guest lecturer, Green Technology and Innovation (MSc), University of Bologna 2019</p> <p>Guest lecturer, Climate Change: Science, Economics and Policy (MSc), LSE 2019</p> <p>Guest lecturer, LIFE SIDE Online course on the EU Emissions Trading System, European University Institute, Florence School of Regulation 2018</p> <p>Guest lecturer, Law and the Environment (LLM), LSE 2016–2018</p> <p>Guest lecturer, Executive Masters program on “Energy, Environment and Regulation” Learning Expedition London, Sciences Po (Paris) 2016</p>
REFEREEING	<p><i>Journals:</i> 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</p> <p><i>Grants:</i> Economic and Social Research Council, Swiss National Science Foundation, UK Research and Innovation</p> <p><i>Conference Programme Committee:</i> European Association of Environmental and Resource Economics Annual conference 2019, 2021-2024.</p>
PROFESSIONAL ACTIVITIES	<p>European Association of Environmental and Resource Economists (EAERE) (since 2009–)</p> <p>Association of Environmental and Resource Economists (2013)</p>
LANGUAGES	Japanese, native; English, fluent; Chinese Mandarin, proficient
INVITED SEMINARS/TALKS	<p>Grantham Workshop, London School of Economics, February 2024</p> <p>Oxford Environmental Economics Seminar, Oxford University, February 2024</p> <p>Department of Economics Seminar Series, TED University-Ankara, July 2023</p> <p>Center for Environmental and Resource Economics, Umea University, May 2023</p> <p>National Bank of Belgium, Seminar on Firm Analysis, March 2023</p> <p>UK Department for Business, Energy &amp; Industrial Strategy, Carbon Pricing Seminar, February 2023</p> <p>EAERE, The Economics of a Just and Equitable Climate Transition Pre-Conference Workshop (Keynote), June 2022</p> <p>National University of Singapore, Energy Studies Institute Workshop on International Experience of Carbon Pricing – Adoption and Implementation, January 2023</p> <p>Florence School of Regulation/ EUI 8th Annual Conference on the Economic Assessment of European Climate Policies, December 2022</p> <p>Grantham Workshop, London School of Economics, November 2022</p> <p>19th International Fiscal Association - WIN Japan online Seminar, November 2022</p> <p>EAERE, The Economics of a Just and Equitable Climate Transition Pre-Conference Workshop (Keynote), June 2022</p> <p>WTO, Trade and Climate Change Webinar, April 2022</p> <p>Oxford University, Multilateral cooperation and carbon taxation: challenges and opportunities Workshop, March 2022</p> <p>Cambridge University, Cambridge Centre for Environment, Energy, and Natural Resource Governance Seminar, November 2021</p> <p>US International Trade Commission workshop on Trade and Environment, October 2021</p> <p>ifo Institute Munich and TUM School of Management, Seminar on Energy and Environmental Economics Munich, January 2020</p> <p>University of Bayreuth, Economics Research Seminar, Bayreuth, July 2019</p> <p>Energy Studies Institute, National University of Singapore, May 2019</p> <p>CIREN Environmental Economics Seminar, Paris, March 2019</p> <p>LSE Grantham Research Institute workshop, London, January 2018</p> <p>VATT Institute for Economics Research / HECER Environmental, Resource and Energy Economics Seminar, Helsinki, May 2017</p>

UK Department of Energy & Climate Change Analytical Seminar Series, London, May 2016  
Paris Environmental and Energy Economics Seminar, Université Paris 1, March 2015

CONFERENCE/  
WORKSHOP  
PRESENTA-  
TIONS

EcoTransit Workshop, University of Siena, April 2024  
Climate change research with impact: what works? Centre for Climate Change Economics and Policy  
final event, London, November 2023  
International Green Skills Conference, London, September 2023  
6th Annual LSE/Imperial Workshop on Environmental Economics, London, June 2023  
UK BEIS carbon pricing seminar seires, London, February 2023  
Knowledge, skills, behaviours: An international workshop on the systematic analysis of job vacancy  
data, Brighton, Oct 2022  
26th EAERE Annual Conference, Rimini, June 2020  
25th EAERE Annual Conference, Berlin, June 2020  
24th EAERE Annual Conference, Manchester, June 2019  
6th World Congress of Environmental and Resource Economists, Gothenburg, June 2018  
23rd EAERE Annual Conference, Greece, 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 EAERE Annual Conference, Rome, June 2011  
ENVECON Applied Environmental Economics Conference, The Royal Society, London, February  
2011