

**CV: MATTI LISKI****Education**

Helsinki School of Economics (HSE): Ms. Sc. 1992, Lic. Sc. 1995, Dr. Sc. 1997.

**Fields of interests**

Energy and Environmental Markets (Q2-Q5, L5, L94, H23), Natural Resources (Q0, E2), Applied Microeconomic Theory (D0-D9), Public Economics (H20-H23, H4), Growth (O13, O4), Industrial Organization (L0, L1)

**Affiliations**

Aalto University: professor

Toulouse School of Economics: visiting professor 2011, 2014

MIT Center for Energy and Environmental Policy Research: associate

Energy Policy Research Group (EPRG), University of Cambridge: associate

University of Helsinki: adjunct professor, department of economics

CESifo-Munich, affiliate

**Teaching**

Microeconomics

Principles of economics

Energy, resource, and environmental economics

Dynamic optimization and applications

Teacher of the year 2009, Helsinki School of Economics

**Professional Service**Editor

Editor: *Scandinavian Journal of Economics*, 2009-2013

Associate Editor: *Environmental and Resource Economics*, 2007-2009

Associate Editor: *Resource and Energy Economics*, 2012-2015

Advisory Board member: *Environmental and Resource Economics*, 2010-

Co-editor of *Finnish Economic Papers*, 2003-2007

Guest Editor (with John List): Special Issue in *Environmental and Resource Economics*, Vol. 31, No. 2 (2005).

Member of the editorial board: *Resource and Energy Economics*, 2007-2012

Member of the editorial board: *Environment and Development Economics*, 2007-

Scientific evaluations

Examiner and opponent: Harri Laurikka, TKK 2006; Sverre Jenssen, Oslo 2012; Francis Denning, University of Oxford 2013; Thomas Michielsen, University of Tilburg 2013; Katinka Holtmark, Oslo 2015; Juha Itkonen, University of Helsinki 2015.

Promotion evaluation, Statistics Norway, 2013

Tenure track committees, University of Helsinki, 2010-16

Tenure track committees, Aalto University, 2010-16

European Association for Environmental and Resource Economists: member of the scientific committee for annual meetings in 1999, 2005, 2007, 2008, 2009, 2011, 2012, 2013, 2015, 2016, 2017

Econometric Society, European meeting 2008, 2009, 2011

The World Congress of Environmental and Resource Economists 2006, 2010, 2014

Nordic Workshop in Industrial Organization IV in 2005: the program committee

The U.S. National Science Foundation: research proposal evaluations (economics)

The Norwegian National Science Foundation: research proposal evaluations (economics)

Tenure evaluation, University of Oslo (economics), 2012

Tenure evaluation, VTI, 2012

### Some Current and Recent Graduate Students

Olli Kauppi, 2009, first position at the University of Nottingham

Lassi Ahlvik, 2016, first position at the Norwegian School of Economics (NHH)Bergen, Norway

Robin Stitzing, 2016, first position at Nokia Technologies

Anna Sahari, thesis defense May 2017

### Referee reports

The Journal of the European Economic Association, Journal of Public Economics, Review of Economic Studies, Econometrica, American Economic Review, Journal of Economic Theory, RAND Journal of Economics, Economic Theory, Journal Environmental Economics and Management, Environmental and Resource Economics, Energy Economics, Scandinavian Journal of Economics, Journal of Economic Behavior and Organization, Journal of Public Economic Theory, Development and Environmental Economics, Journal of Regulatory Economics, Finnish Economic Papers

2015 Journal of the European Economic Association (JEEA) “Excellence in Refereeing Award”

### Workshops organized

Environmental, energy and environmental economics seminar, HECER, co-organizer 2014-present  
Cologne International Energy Summer (CIES) in Energy and Environmental Economics 2013, with Richard Green

Instrument Design and Choice in Environmental Regulation, Helsinki School of Economics, 2002

Finnish Postgraduate Program in Economics: environmental and resource economics seminars 2003-present (coordinator)

Nordic Energy Research Program: annual seminars organized in 2004 and 2008.

Co-organizer of the weekly departmental seminar, HECER, 2005-2006

Summer school: European Summer School in Resources and Environmental Economics with Reyer Gerlagh, Venice 2011

Minicourse in resource economics: Toulouse School of Economics, 2011; 2014

Minicourse in climate-change economics: Paris School of Economics, 2012

### Other

EAERE board member (elected), 2010-2013

### **Presentations**

Keynotes

SURED 2012, Monte Verità Conference on Sustainable Resource Use and Economic Dynamics, June, 2012  
 CESifo Munich 2012 Conference on “Energy and Climate Economics”  
 The David Pearce Lecture: 22nd Annual Conference of the European Association of Environmental and Resource Economists, Zurich, June 2016  
 Aalto University, Opening ceremony 2011  
 The 5th Bergen Economics of Energy and Environment Research Conference (BEEER) at NHH on 22 - 23 May 2017

Departmental

University of Heidelberg, Spring 2001, Fall 2007  
 MIT economics department, Theory lunch seminar, Fall 2001  
 MIT economics department, Industrial organization seminar, Fall 2001  
 University of Maryland, department of agricultural and resource economics, Fall 2001  
 University of California, Berkeley, department of agricultural and resource economics, Fall 2001  
 University of California, Davis, department of agricultural and resource economics, Fall 2001  
 Harvard University, Kennedy School of Government, Spring 2002  
 University of Quebec and Montreal, department of economics, Spring 2002  
 MIT, Center for Energy and Environmental Policy Research, Spring 2002  
 Erasmus University Rotterdam, Tinbergen Institute, Fall 2002  
 Tilburg University, department of economics, Fall 2002  
 Helsinki Center for Economics Research, applied microeconomics seminar, Fall 2004  
 Catholic University of Chile, department of economics, Fall 2004, Fall 2006, Fall 2007  
 Helsinki Center for Economics Research, lunch seminar, 2005, 2007, 2009, 2012  
 Helsinki Center for Economics Research, applied microeconomics seminar, 2005, 2006, 2008, 2011, 2012  
 Universite Paris 1, Pantheon-Sorbonne, Spring 2006  
 University of Toulouse, Lerna 2007  
 University of Stirling, Spring 2007  
 Catholic University of Leuven, Fall 2007  
 Zurich ETH, Fall 2009, Fall 2010  
 University of Oslo, Fall 2009  
 Stockholm School of Economics, Fall 2009  
 McGill University 2010  
 Universite Laval 2010  
 Oxford, Oxcarre, 2011  
 Carlos III, Madrid 2012  
 Stockholm IIES 2012  
 Paris School of Economics 2013  
 University of Basel 2013  
 Berlin TU 2013  
 Amsterdam Tinbergen Institute 2015  
 Frisch Center Oslo 2015  
 Paris Ecole Polytechnique 2016

Other invited academic presentations

Theory and Environment workshop, Oslo 2016

Toulouse school of economics: conference in honor of Michel Moreaux 2011  
 Cambridge 2011, presentation at the EAERE board meeting  
 Workshop at the Center for Advanced Study at the Norwegian Academy of Science and Letters,  
 Fall 2005, Fall 2006, Fall 2007  
 Workshop on Economic Issues in Climate Change, University of Oslo, Fall 1998  
 EURESCO Conference “The International Dimension of Environmental Policy”, Fall 2000,  
 Universidad Complutense de Madrid, IV Complutense International Seminar on European  
 Economy, Spring 2003

## **Other Service**

### University Administration

Director of the Graduate Program (economics department Aalto University), 2010-  
 IPCC Finland, 2007-2010  
 Helsinki Center of Economic Research, HECER: board member, 2010-2014  
 Aalto University: Energy platform board member  
 Director of the Masters program in economics, HSE 2007-2009  
 Member of HSE admission selection committee, 2009-2010

### Other

Fortum Foundation: Board member  
 Chair of Board: Käpylä Music School

### Invited presentations at policy meetings

Government Institute for Economic Research: Greenhouse gas policy questions and social-  
 economic research implications for Finland in a national and an international context, Helsinki 1999  
 Ministry of Trade and Industry, Seminar on Kioto Mechanisms, 1999  
 Ministry of Environment, National Seminar on the EU 6<sup>th</sup> Environmental program, 2000  
 Ministry of Environment, Emissions trading seminar, 1998  
 Figure Conference, Lammi 1999  
 Ministry of Environment, National Climate Seminar, 2003  
 Ministry of Environment, Climate Forum, Fall 2004  
 Ministry of Environment, Climate Forum, Spring 2004  
 Finnish Energy Industries, Seminar on Energy Markets, Fall 2005  
 University of Turku, invitation-only, Seminar on Energy Markets, Fall 2006  
 OP-group research foundation seminar on energy and climate change, 2007  
 Elforsk Market Design, June 2007  
 Finnish Energy Industries, October 2007  
 Swedish Association of Energy Economists, December 2007  
 Ministry of Environment, Seminar on Climate Change, November 2007  
 Stockholm School of Economics/SITE, the energy day, 2009  
 Fortum 2011

### Government and other consulting

Report to the Finnish Communications and Regulatory Agency 2016 (working group, Aalto Economic Institute)  
 Report to the Ministry of Social Affairs and Health 2016 (working group, Aalto Economic Institute)  
 The impact of renewable energy on the Nordic electricity market, 2016 ENERGIFORSK (working group, Aalto Economic Institute)  
 Report to the Ministry of Environment 2011 (Gaia Consulting)  
 Advisory board: Government Foresight Report on Long-term Climate and Energy Policy: Towards a Low-carbon Finland, 2008-2009  
 Ministry of Finance: member of the scientific council, 2008-2010  
 Report to Finnish Energy Industries 2009  
 Ministry of Environment: report on the Stern Review, 2007  
 National Technology Agency of Finland: Pomar project, member of the steering group, 2005-07  
 National Technology Agency of Finland: SETELI project, member of the research group, 2005-07  
 Ministry of Environment: National Noise Reduction Plan, member of the steering group, 2005  
 Parliament's Committee for Economic Affairs: served as a testifying expert, stock options, Fortum, October 2005  
 LTT Research Ltd: confidential, 2006-2007  
 The Market Court: testifying witness, Nov 2007  
 Competition Authority: report on the economic effects of resale price maintenance, 1996  
 Ministry of Environment: report on the costs and benefits of climate policies, 2005  
 Ministry of Environment: report on climate change and uncertainty, 2006

### **Awards and Grants**

Helsinki School of Economics Foundation: The best doctoral thesis prize 1998  
 Student Union of the Helsinki School of Economics: The teacher of the year 2009  
 Research Funding: Yrjö Jahnesson Foundation, Alfred Kordelin Foundation, Helsinki School of Economics Foundation, Nordic Energy Research Program, The Academy of Finland

### **Ongoing and recent competitive funding**

Academy of Finland: New Energy Academy Programme 2015-2018  
 Academy of Finland: Decadal climate prediction in adaptation to climate change, 2010-2014  
 Aalto University, AEF program: Smart Control Architectures For Smart Grids – SAGA

## 1. ARTICLES IN INTERNATIONAL JOURNALS WITH REFEREE PRACTICE

Published papers

“A simple formula for the social cost of carbon”, with Inge Bijgaart, Reyer Gerlagh, *Journal of Environmental Economics and Management*, Volume 77, May 2016, Pages 75-94.

“Carbon prices for the next hundred years”, with Reyer Gerlagh, *The Economic Journal*, published online 22 October 2016, doi:10.1111/eoj.12436

“Consistent climate policies”, with Reyer Gerlagh, *The Journal of the European Economic Association*, published online on 23 January 2017, 10.1093/jeea/jvx010

“Forward trading in exhaustible-resource oligopoly” (with J.-P. Montero) *Resource and Energy Economics*, vol. 37, August 2014, 122-146.

“Market power in an exhaustible resource market: The case of storable pollution permits” (with J.-P. Montero), *The Economic Journal*, 121: 116-144.

“Strategic resource dependence (with Reyer Gerlagh,)”, *Journal of Economic Theory*, 146, Issue 2, March 2011, Pages 699-727.

Corrigendum to “Forward trading and collusion in oligopoly” [J. Econ. Theory 131 (1) (2006) 212–230] , (Ludwig Rössner, Juan-Pablo Montero), *Journal of Economic Theory*, Volume 145, Issue 6, November 2010, Pages 2496-2497

“Forward Trading and Collusion in Oligopoly” (with J.-P. Montero), *Journal of Economic Theory*, Volume 131, Issue 1, November 2006, Pages 212-230

“On Pollution Permit Banking and Market Power” (with J.-P. Montero), *Journal of Regulatory Economics*, Vol. 29, No.3 (2006)

“Introduction” (with J. List), Special Issue in *Environmental and Resource Economics*, Vol. 31, No. 2, 159-173 (2005).

“A Note on Market Power in an Emissions Permit Market with Banking” (with J.-P. Montero)” (with Juan-Pablo Montero), Special Issue in *Environmental and Resource Economics*, Vol. 31, No. 2, 159-173 (2005).

“Trends and Breaks in per-capita Carbon Dioxide Emissions, 1870-2028” (with Markku Lanne), *The Energy Journal*, Vol. 25, No. 4 (2004).

"Is It Possible to Move the Copper Market?", (with J.-P. Montero) *Latin American Review* 40, 559-565 (2003).

"Project-Based Emissions Trading" (with Juha Virrankoski) *Environmental and Resource Economics* 28, 347-365 (2004).

"Can Carbon Tax Eat Opec's Rents?", (with Olli Tahvonen) *Journal of Environmental Economics and Management* 47, 1-12 (2004).

"Taxing Average Emissions to Overcome the Shutdown Problem", *Journal of Public Economics* 85, 301-455 (2002)

"Thin versus Thick CO2 Market", *Journal of Environmental Economics and Management* 41, 295-311 (2001)

"Increasing Returns and Cycles in Fishing", (with P. Kort and A. Novak) *Resource and Energy Economics*, 23, 241-258 (2001)

#### Published working papers

"Gone with the Wind? An Empirical Analysis of the Renewable Energy Rent Transfer", with Iivo Vehviläinen, (December 19, 2016). CESifo Working Paper Series No. 6250. Available at SSRN: <https://ssrn.com/abstract=2907997>, submitted

"Not so myopic consumers: evidence on capitalisation of energy technologies in a housing market", with Oskari Harjunen (2014), CESifo Working Paper Series No. 4989, submitted

"Cake eating with private information", with Reyer Gerlagh (2015), CESifo Working Paper Series No. 5050, submitted

"A Simple Formula for the Social Cost of Carbon", with Inge Van den Bijgaart, Reyer Gerlagh, and Luuk Korsten, FEEM Working Paper No. 83.2013, (published *Journal of Environmental Economics and Management*, Volume 77, May 2016, Pages 75-94.)

"Carbon prices for the next thousand years", with Reyer Gerlagh, CESifo Working Paper Series No.3855, 2012 (Published as "Consistent climate policies," *The Journal of the European Economic Association*, published online on 23 January 2017, 10.1093/jeea/jvx010)

"Carbon prices for the next hundred years", with Reyer Gerlagh, CESifo Working Paper Series No. 4671, 2014 (*The Economic Journal*, published online 22 October 2016, doi:10.1111/eoj.12436)

"Uncertainty and energy saving investments" with Pauli Murto, MIT-CEEPR (Series);10-005WP, 2010

"An empirical model of imperfect dynamic competition and application to hydroelectricity storage" with Olli Kauppi, MIT-CEEPR (Series);10-005WP, 2010

#### In progress

"Tipping points, delays, and the control of catastrophes" with François Salanié

“Carbon leakage: a mechanism design approach” with Lassi Ahlvik

“Cross-ownership in a war of attrition: the case of the nuclear phase-out”, with Iivo Vehviläinen

“Rent seeking in climate policy”, with Reyer Gerlagh

## 2. ARTICLES IN INTERNATIONAL COMPILATION WORKS WITH REFEREE PRACTICE

Harstad B., and Liski M. (2013) *Games and Resources*. In: Shogren, J.F., (ed.) “Encyclopedia of Energy, Natural Resource, and Environmental Economics”, Vol. 2, pp. 299-308 Amsterdam: Elsevier.

Chakravorty U., and Liski M. (2013) *The Economics Of Market Power In The Extraction Of Nonrenewable Resources*. In: Shogren, J.F., (ed.) “Encyclopedia of Energy, Natural Resource, and Environmental Economics”, Vol. 2, Amsterdam: Elsevier.

"Should Emission Reduction Units Be Tradable", in Marsiliani, Rauscher, Withagen (eds), *Environmental Economics and the International Economy*, Kluwer, 2000.

“Dynamic Price Competition “, in Willy Østreg (ed): *Consilience. Interdisciplinary Communications 2005/2006*, Centre for Advanced Study, Oslo, January 2007.

## 3. REVIEWS

“Firms, Governments and Climate Policy”, Carraro and Egenholfer, eds., *Journal of Economic Literature*, June 2004.

## 4. SCIENTIFIC MONOGRAPHS

“On the Regulation of Pollution and Polluters’ Long-term Compliance Strategies”, Dissertation, Helsinki School of Economics 1997.

“Economic Growth, Fixed Factors and Environmental Wealth Effects”, Lic. thesis, Helsinki School of Economics 1995.

## 5. OTHER SCIENTIFIC PUBLICATIONS (IN FINNISH)

“Projektikohtainen Päästokauppa”, *Metsätieteellinen aikakauskirja* 4, 634-638, 2000.

”Yhdysvaltain rikkidioksidilupien ominaisuudet varastoitavina hyödykkeinä”, *Kansantaloustieteellinen Aikakauskirja* 3/2002.

"Kilpailu sähkömarkkinoilla", *Kansantaloudellinen Aikakauskirja*, 2/2006.

”Strateginen öljyriippuvuus- kommentti Paavo Sunin kirjoitukseen”, *Kansantaloudellinen Aikakauskirja*, 2/2007.



”Sähkömarkkinoiden kilpailuongelmat”, Kilpailuoikeudellinen vuosikirja 2007

”Sternin raportti ja sen kritiikki”, Kansantaloudellinen Aikakauskirja, 1/2008

”Stern ja amerikkalaiset: vastaus Tuomalan kritiikkiin”, Kansantaloudellinen Aikakauskirja, 2/2008.

## 7. POLICY REPORTS (IN FINNISH)

”Ottakaa tämä vakavasti! Asiantuntijanäkemyksiä ilmastonmuutoksen vaikutuksista”. Sitra 2016. Kirjoittajat: Jaana Bäck, Juhani Damski, Pekka Haavisto, Lea Kauppi, Kirsi Latola, Matti Liski, Peter Lund, Mari Pantsar, Juha Pekkanen, Oras Tynkkynen, Olli Varis, Mari Walls Toimitus: Liisa Poussa. ISBN 978-951-563-976-9.

”Taajuushuutokauppa 2016. Kommentteja suunnittelua varten”. Kirjoittajat: Matti Liski, Oskari Nokso-Koivisto, Juuso Välimäki. Viesintävirasto 2016.

”Soteuudistus 2016. Kommentteja suunnittelua varten”. Kirjoittajat: Matti Liski, Oskari Nokso-Koivisto, Mikko Meuronen Otto Toivanen. STM 2016.

”The impact of renewable energy on the Nordic electricity market”. 2016 ENERGIFORSK.

”Maamme Energia”, Jarmo Partanen, Markku Wilenius, Minna Halme, Janne I. Hukkinen, Jouko Korppi-Tommola, Lassi Linnanen, Matti Liski, Raimo Lovio, Peter Lund, Jyrki Luukkanen. Into kustannus 2015.

”Teknologiateollisuuden uuden sähkömarkkinamalli taloudelliset vaikutukset”, Energiateollisuus ry, 2010.

”Sternin raportti ja sen kritiikki”, selvitys, Ympäristöministeriö, marraskuu 2007

”Sääntelyn ympäristöinnovaatiovaikutukset”. Ympäristöministeriön raportteja 5/2011, 38 s. URN:ISBN:978-952-11-3839-3. ISBN 978-952-11-3839-3 (PDF). Sanna Ahvenharju (toim.), Mari Saario, Anu Vaahtera, Iivo Vehviläinen, Mari Hjelt ja Matti Liski, 2011.

”Ilmastopolitiikan hyötyjen arviointi epävarmuuden vallitessa”, selvitys, Ympäristöministeriö, maaliskuu 2006

”Ilmastopolitiikan kustannusten ja hyötyjen arviointi eri aikaväleillä”, selvitys, Ympäristöministeriö, syyskuu 2004

”Määrähinnan käytön taloudelliset vaikutukset”, Kilpailuvirasto, selvityksiä 5/1996

## 8. POPULAR PRESS (IN FINNISH)

”Omistajaohjaus ei sovi monopolien sääntelyyn”, Helsingin Sanomat, vieraskynä, Helmikuu 2016

”Edullinen tuotantorakenne tuo Fortumille voittoja”, Helsingin Sanomat, mielipide, joulukuu 2006

Akateeminen talousblogi: <http://blog.hse-econ.fi/?author=5>

”Päästökauppa teollisuuden etu”, Helsingin Sanomat, vieraskynä, tammikuu 2004

”Lyhytnäköistä Energiapolitiikkaa”, Helsingin Sanomat, mielipide, marraskuu 2004

”Akateemiset turistit”, Avista, 2/2003.

”Mitä Fortum myi?”, Helsingin Sanomat, Mielipide, marraskuu 2000.

”Päästökauppa voi pitkittää saasteongelmaa”, Vihreä Lanka 2/1998

”Suomi tarvitsee päästökauppaa”, Helsingin Sanomat, vieraskynä lokakuu 1999 (with Pertti Haaparanta)