

Curriculum Vitae

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Birth date: May 31, 1969.

Civil status: Married, two children.

Current position: Senior Research Fellow, Research Institute of Industrial Economics (IFN). Associate researcher of Energy Policy Research Group (EPRG), University of Cambridge, and Program on Energy and Sustainable Development (PESD), Stanford University. .

Higher education:

M.Sc., electrical engineering, Royal Institute of Technology (KTH), Stockholm, 1992.

Licentiate in electric power engineering, Royal Institute of Technology (KTH), Stockholm, 1996.

B.Sc., Business administration and economics, Stockholm University, 2000.

Ph.D., electric power engineering, Uppsala University, 2000.

Ph.D., economics, Uppsala University, 2005.

Docent (Habilitation) economics, Uppsala University, 2011.

Previous employments:

Military service, National Defence Research Establishment (Foa), 1993.

Graduate student, Department of Power Engineering, Royal Institute of Technology (KTH), Stockholm, 1994-96.

Research engineer, Department of HV Electromagnetic Systems, ABB Corporate Research, 1996-2005 (on leave 2001-2005).

Graduate student, Department of Economics, Uppsala University, Sweden, 2001-2005.

Desk Officer, Ministry of Finance, Sweden, 2005-2006.

Research fellow, Department of Economics, Uppsala University, Sweden, 2006-2008.

Other activities

Economic expert in Stockholm Administrative Court of Appeal, 2008-2010.

Awards:

Jan Wallander and Tom Hedelius Foundation, Wallander scholarship, 2006–2009.

Jan Wallander and Tom Hedelius Foundation, Hedelius scholarship, 2003.

Award from the Electric Power Technology Research Program (Elforsk) for best Ph.D. thesis in their program, 2001.

PUBLICATIONS

Articles published in refereed journals

"Optimal Capacity Mechanisms for Competitive Electricity Markets", (with Robert A. Ritz), *The Energy Journal*. (forthcoming).

"Simulation and Evaluation of Zonal Electricity Market Designs", (with Mahir Sarfati), *Electric Power Systems Research*, Vol. 185, 2020.

"Production efficiency of nodal and zonal pricing in imperfectly competitive electricity markets", (with Mahir Sarfati and Mohammad Reza Hesamzadeh), *Energy Strategy Reviews*, Vol. 24, 2019, pp. 193-206.

"Comparing auction designs where suppliers have uncertain costs and uncertain pivotal status", (with Frank Wolak), *Rand Journal of Economics*, Vol. 49(4), pp. 995-1027.

"On supply-function equilibria in radial transmission networks", (with Andrew Philpott), *European Journal of Operational Research*, Vol. 271, 2018, pp. 985-1000.

"Price instability in multi-unit auctions", (with Edward Anderson), *Journal of Economic Theory* 175, 2018, pp. 318-341.

"Pro-competitive rationing in multi-unit auctions", *Economic Journal*, 127(605), 2017, pp. F372-F395.

"Relaxing Competition through Speculation: Committing to a Negative Supply Slope", (with Bert Willems), *Journal of Economic Theory*, Vol. 159, 2015, pp. 236-266.

"Comparison of congestion management techniques: Nodal, zonal and discriminatory pricing", (with Ewa Lazarczyk), *Energy Journal*, Vol. 36, 2015, pp. 145-166.

"Supply Function Equilibria: Step Functions and Continuous Representations", (with David Newbery and Daniel Ralph), *Journal of Economic Theory*, Vol. 148, 2013, pp. 1509-1551.

"Mixed Strategies in Discriminatory Divisible-good Auctions", (with Edward Anderson and Andrew Philpott), *Rand Journal of Economics* 44 (1), 2013, pp. 1–32.

"Strategic Forward Contracting in the Wholesale Electricity Market", *Energy Journal*, Vol. 32, No.1, 2011, pp. 169-202.

"The Supply Function Equilibrium and Its Policy Implications for Wholesale Electricity Auctions", (with David Newbery), *Utilities Policy*, Vol. 18, No. 4, December 2010, pp. 209-226.

"Supply Function Equilibria of Pay-as-Bid Auctions", *Journal of Regulatory Economics*, Vol. 36, 2009b, pp. 154-177.

"Numerical calculation of asymmetric supply function equilibrium with capacity constraints", *European Journal of Operational Research*, Vol. 199, 2009a, pp. 285-295.

"Unique Supply Function Equilibrium with Capacity Constraints", *Energy Economics*, Vol. 30, Issue 1, January 2008, pp. 148-172.

“Supply Function Equilibrium with Asymmetric Capacities and Constant Marginal Costs”, *Energy Journal*, Vol. 28, No. 2, 2007, pp. 55-82.

“Some inequalities related to electricity auctions”, (with P. Hästö), *Applied Mathematics Letters*, Vol. 19, No. 8, August 2006, pp. 814-819.

“A coupled FEM and lumped circuit model of the electromagnetic response of a coaxially insulated winding in two slot cores”, (with M. Leijon), *European Transactions on Electrical Power*, Vol. 17, No. 6, 2007, pp. 554 – 568.

“A wide-band lumped circuit model of the terminal and internal electromagnetic response of rotating machine windings with a coaxial insulation system”, (with S. Johansson and M. Leijon), *IEEE Transactions on Energy Conversion*, vol. 19, no. 3, Sept, 2004, pp. 539 – 546.

Closure on “A Wide-Band Lumped Circuit Model of Eddy Current Losses in a Coil with a Coaxial Insulation System and a Stranded Conductor”, (with M. Leijon and T. Wass), *IEEE Transactions on Power Delivery*, vol. 19, no. 2, April 2004, p. 903.

“A wide-band lumped circuit model of the terminal and internal electromagnetic response of coaxially insulated windings mounted on a core”, (with M. Leijon), *European Transactions on Electrical Power*, vol. 13, no. 3, May/June, 2003, pp. 141-149.

“A wide-band lumped circuit model of eddy current losses in a coil with a coaxial insulation system and a stranded conductor”, (with M. Leijon and T. Wass), *IEEE Transactions on Power Delivery*, vol. 18, no. 1, January 2003, pp. 50-60.

“A wide-band lumped circuit model of the terminal and internal electromagnetic response of a coil with a coaxial insulation system”, (with M. Leijon), *IEE Electric power applications*, vol. 149, no. 6, November 2002, pp. 459-464.

“Modelling a magnetomechanical drive by a coupled magnetic, electric and mechanical lumped circuit approach”, (with A. Bergqvist and G. Engdahl), *Journal of Applied Physics*, vol. 81, no. 8, part 2A, April 1997, pp. 4091-4093.

“Modelling eddy currents and hysteresis in a transformer laminate”, (with A. Bergqvist and G. Engdahl), *IEEE Transactions on Magnetics*, vol. 33, no. 2, March 1997, pp. 1306-1309.

Revise and resubmits

"Capacity Mechanisms and the Technology Mix in Competitive Electricity Markets", (with Robert Ritz), *Energy Journal*.

Peer-reviewed Working Papers at University of Cambridge

“Increase-Decrease Game under Imperfect Competition in Two-stage Zonal Power Markets – Part I: Concept Analysis”, (with Mohammed Reza Hesamzadeh and Mahir Sarfati), Cambridge Working Papers in Economics: 1869.

“Increase-Decrease Game under Imperfect Competition in Two-stage Zonal Power Markets – Part II: Solution Algorithm”, (with Mohammed Reza Hesamzadeh and Mahir Sarfati), Cambridge Working Papers in Economics: 1870.

"Central- versus Self-Dispatch in Electricity Markets", (with Victor Ahlqvist and Thomas Tangerås), Cambridge Working Paper in Economics 1902.

Book chapters

"En gemensam elmarknad stärker EU:s konkurrenskraft" (with Thomas Tangerås). Antonia Bakardjieva Engelbrekt, Lars Oxelheim och Thomas Persson (red.): Ett konkurrenskraftigt EU till rätt pris, 2013.

"Konkurrens och prisbildning". Mats Bergstrand (red.): Upplyst eller utfrys - en antologi om elmarknaden, 2012.

Media

"Behåll och effektivisera effektreserven", Second opinion, 8 juli, 2019.

A minor change in market trading rules could save taxpayers billions of dollars, LSE Business Review, November 29, 2017.

Regeringens svajiga energipolitik höjer elpriset, Dagens samhälle, 18 mars, 2016.

Ny ransoneringsregel kan förbättra värdepappershandeln, Realtid.se, 15 mars, 2016.

IFN: Sverige vandrar samma väg som UK, Montel Kraft-Affärer, Nr 2, vecka 4, 2016.

Debatt: Lär av Storbritanniens avskräckande exempel, Dagens Industri, 25 januari, 2016.

"S-förslaget riskerar att höja elpriset i Malmö", Kvällsposten, 24 januari, 2014.

"Meningslöst förbjuda vinstuttag i vårdföretag", SvD Brännpunkt, 5 juli, 2013.

Elprisskillnaderna i Sverige är motiverade (with Sven-Olof Fridolfsson and Thomas Tangerås), SvD Brännpunkt, March 25, 2013.

Backa inte reformen med elområden (with Sven-Olof Fridolfsson and Thomas Tangerås), SvD Brännpunkt, March 14, 2013.

Paneldebatt på SVT2 den 6/2 om EU:s väg ut ur krisen.

Konsumenter vinner på fler elområden, Dagens Industri, 20 april 2012

Elområden viktiga för en effektivare elmarknad (with Thomas Tangerås), DN Debatt, 5 mars 2012

Elbörsens modell för prissättning fungerar bra, GT Expressen, 6 mars 2011

Elhandlares förslag kan ge högre elpriser, SvD Brännpunkt, 2 mars 2011

Politiskt förslag kan ge högre elpriser, Newsmill, 15 november 2010

Elproducenternas vinster gynnas av regelverket, DN Debatt, 24 juni 2010

Elmarknaden fungerar bra men kan övervakas bättre, Dagens Industri, 17 april 2010

Konkurrensen och prisbildningen på grossistmarknaden för el, IFN Nyhetsbrev #2 2010

Inget att vinna på alternativ prissättning, Dagens Industri, 11 november 2009

Produktion och återförsäljning i samma bolag kan förbättra konkurrensen på elmarknaden, IFN Nyhetsbrev #1 2009

Published patent applications in US

- US15884459 “Bundles for an efficient auction design” (with Keith Ruddell and Bert Willems)
US14619065 “Rationing rules and bidding formats for an efficient auction design” (with Lawrence Ausubel, David Newbery and Daniel Ralph)

Granted patent applications in Sweden (SE), United States (US) and Australia (AU).

- SE508523 “Elektrisk kabel, avsedd för elektrisk lindning, samt sådan lindning, torrtransformator och reaktor” (with Peter Carstensen, Udo Fromm)
SE510947 “Manteltransformator/-reaktor samt förfarande för att framställa en sådan.” (with Thorsten Schütte, Udo Fromm, Christian Sasse)
SE512402 “Reaktor” (with Håkan Kols, Thorsten Schütte, Kjell Andersson, Mats Ekberg, Bertil Berggren, Kailash Srivastava)
SE514823 “Reaktor samt användning därav” (with Thorsten Schütte and Bertil Berggren)
US Pat. 6801421 “Switchable flux control for high power static electromagnetic devices” (with Christian Sasse, Mats Leijon, Gunnar Russberg and Udo Fromm)
US Pat. 6867674 “Transformer” (with Thorsten Schütte, Jan Brangefalt, Christian Sasse, Peter Carstensen)
US Pat. 6885273 “Induction devices with distributed air gaps” (with Pan Min, Li Ming, Rongsheng Liu, Mikael Dahlgren, Gunnar Russberg, Christian Sasse, Svante Söderholm)
US Pat. 6970063 “Power transformer/inductor“ (with Li Ming, Sven Hörnfeldt, Udo Fromm, Gunnar Kylander, Mats Leijon)
US Pat. 6995646 “Transformer with voltage regulating means” (with Albert Jaksts, Thorsten Schütte, Udo Fromm, Christian Sasse, Mats Leijon)
US Pat. 7046492 “Power transformer/inductor“ (with Gunnar Kylander, Sven Hörnfeldt, Udo Fromm, Li Ming, Mats Leijon)
AU737317 “Magnetic energy storage” (with Udo Fromm, Christian Sasse)