# Makoto Watanabe

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 Kyoto Institute of Economic Research

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 Yoshidahoncho Sakyo-ku Kyoto 606-8501 JAPAN

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 Homepage:
 http://makoto.wtnb.googlepages.com

## **Position**

Professor	2022 -	KIER, Kyoto University, JAPAN		
Associate Professor	2012-2022	VU University Amsterdam, NL		
Associate Professor	2011-2012	Universidad Carlos III, SPAIN		
Assistant Professor	2005 - 2011	Universidad Carlos III, SPAIN		
Research Fellow	2012-	Tinbergen Institute, NL		
Research Fellow	2012-	CESifo Institute, GERMANY		
Education				
PhD, Economics	2006	University of Essex, UK		
MA, Economics	2002	University of Pennsylvania, USA		
MA, Economics	1998	Kyoto University, JAPAN		
BA, Economics (1 <sup>st</sup> class)	1996	Waseda University, JAPAN		

#### Research/teaching interests

Industrial organization, Applied Theory, Macroeconomics

## Research focus

Intermediation theory, Dynamic trading/pricing patterns, Search and matching theory and its applications Macroeconomic implications of market transactional problems

### **Publications**

- Endogenous cycles in collateralized credit (with Vyacheslav Arbuzov, Yu Awaya and Hiroyuki Fukai), forthcoming, *Journal of Money, Credit and Banking*
- Market making middleman (with Pieter Gautier and Bo Hu), forthcoming, RAND Journal of Economics
- Rational bubbles and middlemen (with Yu Awaya and Kohei Iwasaki), forthcoming, Theoretical Economics
- A model of collateral: endogenizing the borrowing constraint (with Yu Awaya and Hiroyuki Fukai), *International Economic Review*, 62-32 (2021) 1131-1151
- Multiproduct intermediaries (with Andrew Rhodes and Jidong Zhou), Journal of Political Economy, 129-2 (2021) 421-464
- Middlemen: a directed search equilibrium approach, BE Journal of Macroeconomics (Advances), 20-2 (2020) 1-37
- Banking crises and liquidity in a monetary economy (with Tarishi Matsuoka), Journal of Economics Dynamics and Control, 108 (2019) 1-22
- Middlemen: the visible market makers, Japanese Economic Review, 96-2 (2018) 156-170
- Competition in the presence of individual demand uncertainty (with Marc Möller), RAND Journal of Economics, 47 (2016) 273-292
- Collective versus decentralized wage bargaining and the efficient allocation of resources (with Xiaoming Cai, Pieter Gautier, Coen Teulings) *Labour Economics*, 26 (2014) 34-42
- Liquidity constraints in a monetary economy (with Leo Ferraris), International Economic Review, 53 (2012) 255-277
- Collateral fluctuations in a monetary economy (with Leo Ferraris), Journal of Economic Theory, 146 (2011) 1915-1940
- A model of merchants, Journal of Economic Theory 145 (2010) 1865–1889
- Advance purchase discounts versus clearance sales (with Marc Möller), Economic Journal 547 (2010) 1125-1148
- Collateral secured loans in a monetary economy (with Leo Ferraris), Journal of Economic Theory 143 (2008) 405-424
- Inflation, price competition, and consumer search technology, Journal of Economic Dynamics and Control 32 (2008) 3780-3806

# Working papers

- Directed search on a platform: Meet fewer to match more? (with Chengsi Wang), Oct 2021. Revise and Resubmit, Journal of Economic Theory
- Selling constraints (with Jose Luis Moraga-Gonzalez), May 2020
- Liquidity crises and the lender of last resort in a monetary economy (with Tarishi Matsuoka), March 2020
- The wage effect of vacancy referrals from the Public Employment Agency (with Christian Holzner), April 2021
- Intermediation services and search frictions? (with Christian Holzner), November 2020
- Overbooking in markets with rationing, (with Xinying Fu and Pieter Gautier), September 2015
- Refundability and price: empirical analysis on the airline industry, (with Seongman Moon), September 2013
- Hot and Spicy: ups and downs on the price floor and ceiling at Japanese supermarkets, (with Kenn Ariga and Kenji Matsui), December 2010

## Work in progress

- Intermediation and reputation (with Yu Awaya, Zirou Chen and Kohei Iwasaki)
- Dispatching jobs (with Daiji Kawaguchi, Kohei Kawaguchi and Katsuhiro Komatsu)
- Intermediation and payment (with Han Han and Bo Hu)

## Other papers

- Price discrimination and price adjustment under market competition (with Kenn Ariga and Kenji Matsui)

F. Seo and T. Fukuchi, ed. Modeling and Decision Making in Ambiguous Environments (2002)

# Honors, awards, fellowships

-	Vidi Fellowship, Dutch government	:2012-2017
-	Ramon y Cajal Fellowship, Spanish government	: 2009-2012
-	Juan de la Cierva Fellowship, Spanish government	: 2006-2009
-	Overseas Research Student Award, UK government	: 2003-2005
-	Postgraduate Research Studentship, University of Essex	: 2002-2005
-	Fulbright Graduate Student Fellowship	: 2000-2002
-	Research Fellowship of the Japan Society for the Promotion of Science for Young Scientists	, Japan's government

: 1998-2000

## Teaching experience

-	- Lecturer Microeconomics III: Information and Contract Theory (PhD), Tinbergen Inst		te: 2020-21	
		Topics in Organization and Markets (PhD), Tinbergen Institute	: 2017-21	
		Financial Economics (Und), NYU Shanghai	: 2018	
		Financial Economics (Und, MSc), Kwansei U	: 2020	
		Economics of Market Platform (Und), NYU Shanghai	:2018	
		Industrial Organization (PhD), Tinbergen Institute	: 2015	
		Microeconomics and Methods (Und), John Stuart Mill College	: 2017-21	
		Advanced Macroeconomics (MSc), VU Amsterdam	: 2017-20	
		Macroeconomics (Und), Amsterdam University College	: 2015-21	
		Industrial organization I (PhD), Universidad Carlos III	: 2005, 06, 07, 09, 10	
		Industrial organization (Und), Universidad Carlos III	: 2005-10, 11, 12	
		Industrial organization (MSc), University of Rome	:2013	
		Policy Coordination and Decision Making in the EU (MSc), VU Amsterdam	: 2013	
		Mathematics II (Und), Universidad Carlos III	: 2007, 08	
-	Invited lecturer	Intermediation Economics (PhD), Keio U	: 2019, 20	
		Search-matching theory, (PhD), KIER, Kyoto U/Tokyo U	: 2005, 08	
-	Class teacher	Statistics (MSc, pre-sessional), University of Essex	: 2004	
-	- Qualified for high school teaching (subject: social studies) by Ministry of Education Japan's government: 1996			

- Qualified for high school teaching (subject: social studies) by Ministry of Education, Japan's government: 1996

## Other research experiences

- Academic Visiting,	Kwansei Gakuin University, JAPAN	:spring 2020
C	ISER, Osaka University, JAPAN	:winter 2019
	Monash University, AUSTRALIA	autumn 2019
	Keio University, JAPAN	:spring 2019
	University of Peking, CHINA	spring, autumn 2018, 19
	NYU Shanghai, CHINA	:spring 2018
	Nagoya University, JAPAN	:winter 2018
	IER, Hitotsubashi University, JAPAN	spring, winter 2016, 18-19:
	Cannon Institute for Global Studies, JAPAN	spring, winter 2016, 17, 19
	New York University, USA	: 2014-15, 16
	University of Bern, SWITZERLAND	:spring 2013, 14
	University of Rome, ITALY	spring, autumn 2013
	CESifo, University of Munich, GERMANY	:summer 2012, 13
	VU University Amsterdam, NETHERLANDS	:2010-11
	McGill University, CANADA	: summer, 2010
	Tokyo University, JAPAN	: winter, 2008, 09, 13, 19
	HKUST, Hong Kong University of Science and Technology, CHINA	: summer, 2007
	KIER, Kyoto University, JAPAN	: winter, spring 2005, 20-21
- Research Assistant,	Ministry of International Trade and Industry, Japan's government	: 1997-99

#### Presentation

- "Directed search on a platform: Meet fewer to match more?"
  - Deakin University (Nov. 2019), Hitotsubashi University (Nov. 2020), Hong Kong University of Science and Technology (Jan. 2021), U Calros III (April 2021), Tokyo U (June 2021), Keio U (June 2021), Waseda U (June 2021), EARIE meeting, virtual from Bergen (Aug. 2021)
- "Intermediation and reputation"
  - Rochester U (April 2018), 30th Stony Brook International conference on Game Theory (July 2019)
- "Rational bubbles and middlemen"

Cornel-PSU theory workshop (April 2018), Midwest Macro meetings in Madison (May 2018), Search theory workshop, Japan (June. 2018), Macroeconomics Workshop, Osaka (Feb. 2019), U Wisconsin (Mar. 2019), Kohchi Tech U (Mar. 2019), Tinburg U (Mar. 2019), U Peking, Beijing (Mar. 2019), Canon Institute for Global Studies (April 2019), Tokyo U (May 2019), SAET meeting, Ischia (July, 2019), 30th Stony Brook International conference on Game Theory (July 2019), Summer Workshop on Money, Banking, Payments and Finance in Bank of Canada (Aug. 2019), Queensland U, Brisbane (Oct. 2019), Sixth Annual CIGS End of Year Macroeconomics Conference, Tokyo (Dec. 2019), ISER, Osaka U (Jan. 2020), Peking U. (May 2020)

- "Banking crises and the lender of last resort in a monetary economy Workshop of Macroeconomics and Eco-physics, Tokyo (Dec. 2017), Search theory workshop, Japan (Jan. 2018), Osaka U (Jan. 2018), Fifth Macro Marrakech Workshop (April 2018), Midwest Macro meetings in Madison (May 2018), Summer Workshop on Money, Banking, Payments and Finance in St. Luis FED (Aug. 2018), Asian Development Bank Institute (Mar. 2019), Kohchi Tech U (Mar. 2019)
- "Endogenous cycles in collateralized credit"

Search theory workshop, Japan (Mar. 2018), NYU Shanghai (May 2018), U Nottingham Ningbo China (May 2018), Shanghai Forum 2018 (May 2018), Hitotsubashi U Conference (Jan. 2019), Otaru U of Commerce (Feb. 2019), Chukyo U (Mar. 2019), Kansai U (Jan. 2020)

"Selling constraints"

Search and Switching Costs Workshop, Groningen (May 2015), VU Amsterdam (Nov. 2015), Search theory workshop, Japan (Jan. 2016), Tokyo U (Jan. 2016), University of Mannheim (May 2016), SaM network annual meeting, Amsterdam (May 2016), EARIE meeting, Lisbon (Aug. 2016), Gakushuin U, Tokyo (Feb. 2017), EARIE meeting, virtual from Bergen (Aug. 2021) "The wage effect of vacancy referrals from the the public employment agency"/ "Intermediation services and search frictions"

- CESifo Area Conference on Employment and Social Protection, Munich (May 2015), European Economic Association meeting, Mannheim (Aug. 2015), U Munich (Feb. 2016), IZA/CREST/Bonn University Workshop: Employment Policies and heterogeneity in the Labor Market, Bonn (Mar. 2016), Workshop of Macroeconomics and Eco-physics, Tokyo (Mar. 2016), Labor economics conference in honor of Prof. Ariga, Kyoto University (Mar. 2016), SaM network annual meeting, Amsterdam (May 2016), Econometric Society European meeting, Geneva (Aug. 2016), Bard College Berlin (Mar. 2017), Aoyama University (June 2017), Japanese Economic Association meeting, Ritsumeikan U (June 2017), LMU China Academic Network 3rd Scientific Forum (Oct. 2017), Lanchaster U (Oct. 2017), CESifo Area Conference on Employment and Social Protection, Munich (April 2018), SOLE meeting, Toronto (May 2018), SaM network annual meeting, Cambridge (May 2018), Tokyo U (Dec. 2018), Hitotsubashi U (Jan. 2019), Osaka U (Jan. 2018), KIER, Kyoto (Jan. 2022)
- "A model of collateral"

Search theory workshop, Japan (May. 2017), Kyushu U (July 2017), Summer Workshop on Money, Banking, Payments and Finance in Bank of Canada (Aug. 2017), Kyoto U. (Dec. 2017), Osaka U (Dec. 2017), Search theory workshop, Nagoya (Jan. 2018), KIER Kyoto U (Mar. 2018), Applied Macro, Micro, and Econometrics Workshop, Hokkaido University (May 2018), Japanese Economic Association 2018 Fall Meeting (Sept. 2018), Economic Theory and Policy Workshop, Tokyo Institute of Technology (Oct. 2018), Research Workshop, Kyushu University (Nov. 2018)

- "Banking crisis and liquidity in a monetary economy"
  - Summer Workshop on Money, Banking, Payments and Finance in Bank of Canada (Aug. 2017)
- "Multiproduct Intermediaries"

Toulouse U (Dec. 2016), U Bonn (Dec. 2016), Tokyo U (Jan. 2017), Search theory workshop, Japan (Jan. 2017), U Oxford (Feb. 2017), NSU (Feb. 2017), Search and Switching Costs Workshop, Vienna (May 2017), SICS, Haas School UC Barkeley (June 2017) Osaka University (June 2017), Hitotsubashi University (June 2017), ICT conference (Mannheim), SAET meeting, Faro (July, 2007), Econometric Society European meeting, Lisbon (Aug. 2017), EARIE meeting, Maastricht (Aug. 2017), Yale (Sept. 2017), TNIT, Microsoft, (Oct. 2017), MIT Sloan (Oct. 2017), Duke (Nov. 2017), Stanford (Nov. 2017),

The 16th Annual Columbia/Duke/MIT/Northwestern IO Theory Conference (Nov. 2017), MSU (Mar. 2018), UCLA Anderson (Mar. 2018), Zurich (Mar. 2018), MIT (April 2018), Cornel (May 2018), HKUST (May 2018), Monash U, Melbourne (Oct. 2019) "Market-making middleman"

Search and Matching Workshop, U Essex (Nov. 2011), U Bern (Nov. 2011), U Zurich (May 2012), Symposium on Jean Tirole 2014, Hague (Dec 2014), VU University Amsterdam (Mar. 2015), Georgetown U (April 2015), SUNY Albany (April 2015), IIOC meeting, Boston (April 2015), Search and Matching Workshop, Bristol (April 2015), 16th CEPR-JIE School and Conference on Applied Industrial Organization, Zurich (May 2015), SaM network annual meeting, Aix-en-Provence (May 2015), EARIE meeting, Munich (August 2015), Toulouse School of Economics (Nov. 2015), Workshop of the Economics of Platform, Tinbergen Institute (Nov. 2015), Tokyo Metropolitan U (Jan. 2016), Nagoya U (Jan. 2016), Conference on Monetary economics, Rome (Mar. 2016), Keio U (Mar. 2016), SaM network annual meeting, Amsterdam (May 2016), Hitotsubashi U (June 2016), Summer Workshop on Money, Banking, Payments and Finance in Chicago FED (Aug. 2016), Econometric Society European meeting, Geneva (Aug. 2016), 20th EBES Conference, Vienna (Sept. 2016), Southern Methodist University (Oct. 2016), Kobe U (Dec. 2016), Third Annual CIGS End of Year Macroeconomics Conference, Tokyo (Dec. 2016), Kyoto U (Jan. 2017), Waseda U (Feb. 2017), Nihon U (Feb. 2017), U Peking (Nov. 2018), KIER (Jan. 2021)

- "Market structure and advance selling"
- Search and Switching Costs Workshop, Hangzhou (May 2016)
- "Competition in the presence of individual demand uncertainty"
  - University of Mannheim (Mar. 2013), Swiss I.O Day, Berne (June 2013), Econometric Society European meeting, Gothenburg (Aug. 2013), EARIE meeting, Evora (Aug. 2013), Jornadas de Industrial Economia meeting, Segovia (Sept. 2013), U Geneva (Nov. 2013), U Tokyo (Jan. 2014), Search Theory Workshop, Japan (Jan. 2014), Cannon Institute for Global Studies, Tokyo (Jan. 2014), CESifo Applied Microeconomics Conference, Munich (Mar. 2014), Tinbergen Institute, Amsterdam (April. 2014), Royal Economic Society conference, Manchester (April, 2014), University of Groningen (May 2014)
- "Overbooking in markets with rationing"

VU University Amsterdam (Feb. 2012), EARIE meeting, Rome (September 2012), Search/matching workshop, Rouen (Dec. 2012), European Economic Association meeting, Gothenburg (Aug. 2013), EARIE meeting, Evora (Aug. 2013)

"Middlemen: a directed search equilibrium approach"

EARIE meeting, Ljubljana (Sept. 2009), Tokyo U (Jan. 2010), M-MIAOW, Madrid (Apr. 2010), Toulouse School of Economics (May 2010), KIER (June 2010), U Edinburgh (Nov. 2010), Hosei U (Dec. 2010), Search Theory Workshop, Japan (Jan. 2011), U Rome (Oct. 2012), VU University Amsterdam (Nov. 2012), DSGE Conference, Kyoto (Dec. 2013), Hitotsubashi U (Jan. 2014), Tohoku U (Jan. 2014), Nihon U (Jan. 2014)

"Refundability and price: empirical analysis on the airline industry"

Jornadas de Industrial Economia meeting, Vigo (Sept. 2009), Econometrics Society World Congress, Shanghai (Aug. 2010)

- "Hot and Spicy: ups and downs on the price floor and ceiling at Japanese supermarkets"
- Rimini Centre of Economic Analysis, U Bologna (May 2007), U Carlos III (Dec. 2009), Kyuhsu U (Dec. 2009), Okayama U (Dec. 2009), Bank of Japan (Jan. 2011), Tinbergen Institute, Amsterdam (Feb. 2011), University of Mannheim (May 2011)
- "Collateral fluctuations in a monetary economy"

Econometric Society Far Eastern meeting, Tokyo (Aug. 2009), Federal Reserve Bank of Chicago (Aug. 2009), Search Theory Workshop, Japan (Jan. 2010), Keio U (Jan. 2010), U Milan (Mar. 2010)

- "Liquidity constraints in a monetary economy"
  - Federal Reserve Bank of Chicago (Aug. 2008), U Rome (Oct. 2008), Tokyo U (Dec. 2008), Macroeconomics Conference, Tokyo (Dec. 2008), Search Theory Workshop, Japan (Dec. 2008), KIER (Jan. 2010), Bocconi U (Oct. 2010) "Collateral secured loans in a monetary economy"
- - Midwest Economic Theory meeting, Purdue U (Oct. 2006), U Carlos III (Nov. 2006), CSF Conference, Ascona (May 2007), Society of Economic Dynamics conference, Prague (June 2007), Federal Reserve Bank of Cleveland (Aug. 2007), U Milan (Oct. 2007), KIER (Dec. 2007), Search Theory Workshop, Japan (Dec. 2007), Royal Economic Society conference, Warwick (Mar, 2008)
- "Advance purchase discounts versus clearance sales" CESifo conference, Munich (Dec. 2006), Econometric Society Far Eastern meeting, Taipei (July 2007), HKUST (July 2007),
  - SAET meeting, Kos (July, 2007), EARIE meeting, Valencia (Sept. 2007), U Carlos III (Sept. 2007), Search Theory Workshop, Japan (Nov. 2009)
- "A model of merchants"
  - Japanese Economic Association meeting, Okayama U (Sept. 2004), Waseda U (Oct. 2004), Search Theory Workshop, Osaka (Oct. 2004), U Essex (Nov. 2004), Tokyo U (Dec. 2004), Fukuoka U (Dec. 2004), U Maastricht (Feb. 2005), U Carlos III (Feb. 2005), U Leicester (Feb. 2005), Free U Amsterdam (Mar. 2005), Hitotsubashi U (May 2005), Osaka U (June 2005), KIER (June, Aug. 2005), Econometrics Society World Congress, UCL (Aug. 2005), U Paris X (Nov. 2007), U Tsukuba (Dec. 2007), Helsinki Center of Economic Research (Mar. 2008), Econometric Society European meeting, Milan (Aug. 2008),
- "Inflation, price competition and consumer search technology
  - Japanese Economic Association meeting, Ritsumeikan U (Sept. 1998), Macroeconomics Workshop, Osaka (Oct. 1998)

# Ph.D. Supervision

- Anett Erdmann (UCIIIM, defended July 2015; First appointment at *ILADES, Universidad Alberto Hurtado*; currently at ESIC Business & Marketing School)
- Bo Hu (VU Amsterdam, defended June 2019; currently on the tenure track at Fudan University, China)

## Ph.D. Thesis committee member

- Yiyuan Xie (University of New South Wales. Dec. 2014)
- Michele Roberto (University of Rome, Tor Vegata. Jan. 2013)
- Maria C. Avramovich (Universidad Carlos III de Madrid. Sept. 2012; Universidad National de Cordoba)
- Yuko Ueno (University of Essex. Nov. 2011; Cabinet Office of the Japanese Government)
- Igor Sloev (Universidad Carlos III de Madrid. Dec. 2010; Humboldt Universität)
- Luca Paolo Merlino (Universitat Autonoma de Barcelona. Sept. 2009; ECARES )

## **Other Academis Services**

-	Organizer, Labor economics conference in honor of Prof. Ariga, Kyoto University	: 2016
-	Recruting Comittee, VU University Amsterdam	: 2014-15
-	Program Comittee, Econometric Society European Meeting	: 2013, 14, 16
-	Ph.D. Admission Comittee, Universidad Carlos III de Madrid	:2012
-	Microeconomics Seminar organizer, Universidad Carlos III de Madrid	:2009-11

## Funded projects

- "Dynamic Patterns of Trading Practices and Prices under Market Frictions" NWO, Dutch government (01/09/2012-31/08/2017) Principle investigator: Prof. Makoto Watanabe (VU University Amsterdam)
- "Structure of Relationships and Strategic Interactions"
   Ministry of education and science, Spanish government (01/12/2009-01/12/2012); ECO2009-10531
   Principle investigator: Prof. Antonio Cabrales (Universidad Carlos III de Madrid)
- "Markets, Organizations, and Institutions: A New Approach" Ministry of education and science, Spanish government (01/12/2006-01/12/2009); SEJ2006-11665-C02 Principle investigator: Prof. Antonio Cabrares (Universidad Carlos III de Madrid)
- "The Economics of Education and Education Policy in Europe" European Comission (01/04/2006-01/04/2008) Principle investigator: Prof. Juan J. Dolado (Universidad Carlos III de Madrid)

#### **Discussion**

- Ayushi Bajaj, "Digitization and Demonetization in a Shadow Economy Model" at 2018 Bank of Finland and CEPR conference on Money and the Digital Age, Helsinki, Finland
- Ryo Kambayashi, "The Institutional assumption of labor market intervention: the case of public employment services in the twentieth century of Japan" at 2015, Labor Economics Conference in Honor of Prof, Ariga, Kyoto, Japan
- Thomas D. Jeitschko, "Platform Competition with Endogenous Homing" at 2015, 13th International Industrial Organization Conference Annual meeting, Boston, USA
- Bart Bronnenberg, "Marketing and the Economics of Convenience" at 2012 Tinbergen-VU Workshop on Industrial Economics, Amsterdam, the Netherlands
- Norikazu Tawara, "Job Assignment, Human Capital Acquisition and Moral Hazard in Frictional Labor Markets" at 2009 Macroeconomics Conference, Osaka
- Helena Perrone, "Inventories, Unobservable Heterogeneity and Long Run Price Elasticities" at 2009 Jornadas de Industrial Economia meeting, Vigo, Spain
- Dean Corbae, "Credit Scoring and Competitive Pricing of Default Risk" (with Satyajit Chatterjee and José-Víctor Ríos-Rull) at 2007 Workshop on Optimal Monetary Policy and Central Bank Communication, Ascona, Switzerland
- Emmanuel Dhyne, "Lumpy Price Adjustments: a Microeconomics Analysis" (with Catherine Fuss, Hashem Pesaran and Patrick Sevestre) at 2007 Workshop on the Macroeconomics of Price Setting, Rimini, Italy

## Refereeing

Econometrica, American Economic Review, American Economic Review; Insights, Journal of Political Economy, Review of Economic Studies, Journal of Economic Theory, Economic Journal, RAND Journal of Economics, International Economic Review, B.E. Journal of Theoretical Economics, Review of Economic Dynamics, European Economic Review, Journal of Money, Credit and Banking, Journal of Industrial Economics, Journal of Macroeconomics, Macroeconomics Dynamics, Journal of Economic Behavior and Organization, International Journal of Industrial Organization, Journal of Economics, Review of Industrial Economics, Review of Network Economics, Canadian Journal of Economics, Economic Letters, Southern Economic Journal, Labour: Review of Labour Economics and Industrial Relations,

Manchester School, SSHRC (Canadian government), NWO (Dutch government), Chille national foundation

# Languages

Japanese (native), English (fluent), Spanish (intermediate), Dutch (basic)