

## CURRICULUM VITAE

(May 4, 2022)

### PERSONAL INFORMATION:

Emilson Caputo Delfino Silva

Professor

Department of Marketing, Business, Economics & Law

Alberta School of Business, 3-30M, Business Building

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CESifo Research Network Member, Munich, Germany

### CITIZENSHIP:

Brazil and United States of America

### EDUCATIONAL RECORD:

PhD, 1993, University of Illinois at Urbana-Champaign; Fields: Public Economics, Mathematical Economics, Development Economics and International Economics.

MS, 1988, University of Illinois at Urbana-Champaign; Field: Development Economics.

BS, 1986, Universidade de Brasília, Brazil; Economics.

Dissertation: "Three Essays on the Optimal Provision of Excludable Public Goods under Costly Exclusion."

Current Areas of Interest: Public Economics, Environmental Economics, Energy Economics, Urban Economics, Industrial Organization, Development Economics and International Economics.

### TEACHING AND PROFESSIONAL EXPERIENCE:

#### Academic Positions:

July 1, 2021 – Full Professor, Department of Marketing, Business Economics & Law, University of Alberta.

July 1, 2018 – June 30, 2021 – Department Chair, Full Professor, Department of Marketing, Business Economics & Law, University of Alberta.

July 1, 2012 – June 30, 2019 – Full Professor and CAIP Chair, Department of Marketing, Business Economics & Law, University of Alberta

June 8, 2016 – July 1, 2017 – Director, Natural Resources, Energy and the Environment (NREE) Specialization, Alberta School of Business

July 1, 2012 – February 12, 2015: Academic Director, Centre for Applied Business Research in Energy and Environment (CABREE)

July 15, 2006 – June 30, 2012: Full Professor and Ph.D. Director, School of Economics, Georgia Institute of Technology

July 1, 2005 – June 30, 2006: Full Professor and Chair, Department of Economics, Tulane University.

July 1, 2000 – June 30, 2005: Associate Professor and Graduate Program Director, Department of Economics, Tulane University.

July 1, 2003 – May 31, 2004 : Associate Professor (Professor Adjunto), Mestrado em Economia de Empresas, Universidade Católica de Brasília.

July 1, 1999 – June 30, 2000: Assistant Professor, Department of Economics, Tulane University.

Fall 1993 - Spring 1999: Assistant Professor, Department of Economics, University of Oregon.

Visiting Positions:

February 16 – May 2, 2022: Courtesy Visiting Professor, Florida Atlantic University, USA

February 23 – June 5, 2020: Visiting Scholar, University of Brasilia, Brazil

February 21 – 24, 2016: Visiting Scholar, Guanghua School of Management, Peking University, China

August 4 – September 12, 2015: Visiting Scholar, Center for Economic Studies, University of Munich, Germany

June 7 – 11, 2015: Visiting Scholar, Guanghua School of Management, Peking University, China

September 29 – October 3, 2014: Visiting Scholar, Departamento de Economia, Universidade Federal de Juiz de Fora, Brazil.

December, 2013: Visiting Professor, Departamento de Economia, Universidade de Brasilia, Brazil.

May – June 2012: Visiting Professor, Departamento de Economia, Universidade de Brasilia, Brazil.

July 2009: Visiting Scholar, Department of Economics, University of Calgary, Canada.

August – September, 2008: Visiting Fellow, Economics Program, Research School of Social Sciences, Australian National University, Canberra, Australia

November – December, 2005: Visiting Professor, Georgia State University, Atlanta, GA.

June, 2002: Visiting Professor, Universidade Católica de Brasília, Brasília, D.F., Brazil

August 1997, 1998, 2001; June 1999, 2000; July, 2002: Visiting Professor, Aomori Public College, Aomori City, Japan.

April 1996, April 1997: Visiting Scholar, Department of Economics, Keele University, Keele, UK

Summer 1994, 1995: Visiting Scholar, Federalism Research Centre, Australian National University, Canberra, Australia.

Consulting Experience:

January – December, 2005 –: Senior Consultant, World Bank, Washington, DC.

February, 2002: Consultant, Organisation for Economic Co-operation and Development (OECD), Paris.

July 1999, 2001: Consultant, World Bank, Washington, DC.

## PUBLICATIONS IN PEER REVIEWED JOURNALS:

51. "Endogenous abatement technology agreements under environmental regulation," *Games*, 13, 32, doi.org/10.3390/g13020032, 2022 (with Naoto Aoyama).

50. "Overlapping climate clubs: Self-enforcing R&D networks to mitigate global warming," *Games*, 13, 4, doi: 10.3390/g13010004, 2022 (with Chikara Yamaguchi).

49. "Self-enforcing collective counterterror retaliation," *Games*, 13, 1, doi: 10.3390/g13010001, 2022 (with A.R. de Oliveira).

48. "The electric Gini: Income redistribution through energy prices," *American Economic Journal: Economic Policy*, 14(2), 341-365, doi.org/10.1257/pol.20200543, 2022 (with Arik Levinson).

47. "Socioeconomic development of Brazilian municipalities: The role of public and private banks," *Estudios Economicos*, 38(77), 147-170, 2021 (with Greisson Pereira).

46. "Abatement innovation in a Cournot oligopoly: emission versus output tax incentives," *The Japanese Economic Review*, <https://doi.org/10.1007/s42973-020-00047-7>, 2020 (with Naoto Aoyama).

45. "Leadership delegation in rotten kid families," *Journal of Population Economics*, 33, 441-460, 2020 (with J. Faria).

44. "Transnational terrorism: externalities and coalition formation," *Journal of Conflict Resolution*, 62, 496-528, 2018 (with A. Oliveira and J. Faria).

43. "Self-enforcing agreements under unequal nationally determined contributions," *International Tax and Public Finance*, 24, 705-729, 2017.

42. "Intertemporal versus spatial externalities in counterterror policy games," *Dynamic Games and Applications*, 7, 402-421, 2017 (with J. Faria and D. Arce)

41. "Tax competition and federal equalization schemes with decentralized leadership," *International Tax and Public Finance*, 24, 164-178, 2017

40. "Common labor market, attachment and spillovers in a large metropolis," *International Tax and Public Finance*, 23, 693-715, 2016 (with V. Lucas).

39. "Overlapping international environmental agreements," *Strategic Behavior and the Environment*, 5, 255-299, 2015 (with Xie Zhu).

38. "Efficient earmarking under decentralized fiscal commitments," *International Tax and Public Finance*, 22, 683-701, 2015.

37. "Strategic effects of future environmental policy commitments: Climate change, solar radiation management and correlated air pollutants," *Journal of Environmental Management*, 151, 22-32, 2014 (with J. Qu).

36. "Selective decentralized leadership," *Journal of Urban Economics*, 83, 1-5, 2014.

35. "Regional cohesion maintenance, spillovers and imperfect labor mobility," *FinanzArchiv/Public Finance Analysis*, 70, 116-127, 2014 (with Naoto Aoyama).

34. "Beautiful economic features of public landscaping in city beautiful," *Revista Brasileira de Horticultura Ornamental*, 19, 73-79, 2013 (with Adriana Marasca).
33. "What causes intentional homicide?," *Journal of International Development*, 24, 287-303, 2012 (with Paulo Loureiro).
32. "Efficient international environmental agreements for correlated transnational pollutants in the presence of free trade of goods and international transfers," *Strategic Behavior and the Environment*, 1, 175-197, 2011 (with Xie Zhu).
31. "Matching grants, income redistribution and decentralized leadership," *International Tax and Public Finance*, 18, 322-336, 2011 (with Arthur J. Caplan).
30. "Does violence deter investment and hinder economic growth?," *The Brazilian Review of Econometrics*, Vol. 30, no. 1, 53-67, 2010 (with Paulo Loureiro).
29. "Equitable and efficient federal structures with interregional redistribution, interregional spillovers and regional attachment of heterogeneous labor," *Journal of Public Economic Theory*, 12, 323-343, 2010 (with Naoto Aoyama).
28. "Interregional competition, spillovers and attachment in a federation," *Journal of Urban Economics*, 67, 219-225, 2010 (with Chikara Yamaguchi).
27. "Emissions trading of global and local pollutants, pollution havens and free riding," *Journal of Environmental Economics and Management*, 58, 169-182, 2009 (with Xie Zhu).
26. "Interregional redistribution as a cure to the soft budget syndrome in federations," *International Tax and Public Finance* 16, 43-58, 2009 (with Nobuo Akai).
25. "Correlated pollutants, interregional redistribution and labor attachment in a federation," *Environmental and Resource Economics* 41, 111-131, 2008 (with Naoto Aoyama).
24. "Global trading of carbon dioxide permits with noncompliant polluters," *International Tax and Public Finance* 15, 430-459, 2008 (with Xie Zhu).
23. "O brilho da bandeira branca: Concorrência no mercado de combustíveis no Brasil," *Planejamento e Políticas Públicas* 31, 37-65, 2008 (with Mariana R. Pinto)
22. "On the efficiency of a global market for carbon dioxide permits: Type of externality and timing of policymaking," *Economics Letters* 100, 213-216, 2008 (with Xie Zhu).
21. "Optimal control of acid rain in China and Japan: A game-theoretic analysis," *Regional Science and Urban Economics* 37, 100-120, 2007 (with Yoko Nagase).
20. "An equitable, efficient and implementable international scheme to control carbon dioxide emissions," *International Tax and Public Finance* 14, 263-279, 2007 (with Arthur J. Caplan).
19. "Crime and punishment, and corruption: Who needs "untouchables"?," *Journal of Public Economic Theory* 9, 69-87, 2007 (with Charles M. Kahn and Xie Zhu)
18. "An efficient mechanism to control correlated externalities: Redistributive transfers and the coexistence of regional and global pollution permit markets," *Journal of Environmental Economics and Management*, 49, 68-82, 2005 (with Arthur J. Caplan).
17. "An 'ideal Kyoto protocol': Redistributive transfers, emissions trading and global participation," *Oxford Economic Papers*, 55, 216-234, 2003 (with Arthur J. Caplan and Richard C. Cornes).

16. "Public good mix in a federation with incomplete information," *Journal of Public Economic Theory*, 5, 381-397, 2003 (with Richard C. Cornes).
15. "Local public goods, inter-regional transfers and private information," *The European Economic Review*, 46, 329-356, 2002 (with Richard C. Cornes).
14. "Optimal design of performance based rewards in tax administration," *Brazilian Journal of Business Economics*, 2, 9-22, 2002.
13. "Performance-based wages in tax collection: The Brazilian tax collection reform and its effects," *The Economic Journal*, 111, 188-205, 2001 (with Charles M. Kahn and James Ziliak).
12. "Optimal control of acid rain in a federation with decentralized leadership and information," *Journal of Environmental Economics and Management*, 40, 164-180, 2000 (with Yoko Nagase).
11. "Pure public goods and income redistribution in a federation with decentralized leadership and imperfect labor mobility," *Journal of Public Economics*, 77, 265-284, 2000 (with Arthur J. Caplan and Richard C. Cornes).
10. "Local public goods, risk sharing and private information in federal systems," *Journal of Urban Economics* 47, 39-60, 2000 (with Richard C. Cornes).
9. "Rotten kids, purity and perfection," *Journal of Political Economy* 107, 1034-1040, 1999 (with Richard C. Cornes).
8. "Federal acid rain games," *Journal of Urban Economics* 46, 25-52, 1999 (with Arthur J. Caplan).
7. "Winners and losers in a world with global warming: Noncooperation, altruism and social welfare," *Journal of Environmental Economics and Management* 37, 256-271, 1999 (with Arthur J. Caplan and Christopher J. Ellis).
6. "Sustainable clubs under variable participation," *The Brazilian Review of Econometrics*, 19 (2), 1999 (with Flávio M. Menezes).
5. "British bus deregulation: Competition and demand coordination," *Journal of Urban Economics* 43, 336-361, 1998 (with Christopher J. Ellis).
4. "Transboundary pollution control in federal systems," *Journal of Environmental Economics and Management* 34, 173-186, 1997 (with Arthur J. Caplan).
3. "Decentralized and efficient control of transboundary pollution in federal systems," *Journal of Environmental Economics and Management* 32, 95-108, 1997.
2. "À-la-carte or smorgasbord: multiproduct clubs with costly exclusion," *Journal of Urban Economics* 41, 264-280, 1997.
1. "Exclusion and moral hazard: The case of identical demand," *Journal of Public Economics* 52, 217-235, 1993 (with Charles M. Kahn).

#### **PUBLICATIONS IN BOOKS:**

4. "The Oil-Price Threshold Effect on External Balances in Saudi Arabia, Russia and Canada: Accounting for Geopolitics and Environmental Sustainability" in F. Belaid and A. Creti, eds. *COVID-19 Impact on Energy Transition and Climate Change*, Switzerland, Springer, 2021 (with N. A. Razek and N. M. Michieka)

3. “Decentralized Leadership,” in W. Buchholz and D. Rübhelke, eds. *The Theory of Externalities and Public Goods: Essays in Memory of Richard C. Cornes*, Switzerland, Springer, 2017.
2. “Equitable and Efficient International Schemes to Control Carbon Dioxide Emissions,” in D. Nelson, ed. *The Political Economy of Policy Reform: Essays in Honor of J. Michael Finger*, Amsterdam, Elsevier, 2005 (with Arthur J. Caplan).
1. “Incentive Effects of Performance-Based Rewards in Tax Administration,” in J. McLaren, ed. *Institutional Elements of Tax Design and Reform*, Washington, DC: World Bank, 2003.

#### **WORK IN PROGRESS:**

1. “Insensitive Multinationals? Competitive Subsidies and Carbon and Corporate Income Taxes” (with V. Lucas)
2. “Overlapping Climate Clubs under Crowding and Transaction Costs” (with C. Yamaguchi)
3. “Cartels with Illegal Retaliation” (with D. Silveira and S. Vasconcelos)
4. “Multiple Climate Clubs” (with J. Qu)
5. “Royalties in Brazil’s Pre-Salt Region: Social and Economic Implications” (with G. Almeida)
6. “Bequests, Transfers and Public Goods in Families with Heterogeneous Children” (with D. Gomes)
7. “Interregional Competition under Political Incentives” (with B. Boskovic, D. Uhr and J. Uhr)
8. “Political Incentives, Interregional Competition and Federal Equalization Schemes under Decentralized Leadership”
9. “Land Allocation and Size of Chinese Cities” (with J. Yu and G. Zhu)
10. “Asymmetric Innovation Agreements under Environmental Regulation” (with N. Aoyama)
11. “Asymmetric Decentralized Leadership in a Heterogeneous Federation”
12. “OPEC+’s ‘Reasonable Oil Price Level’ Notion and the External Breakeven in Saudi Arabia, Russia and Canada: Accounting for Economic Cycles and Pipeline Politics” (with N. Razek and N. Michieka)
13. “A DSGE model to examine the impact of carbon tax accompanied by adopting green technology in an oil-dependent economy” (with N. Khaleghifar and H. Khodavaisi)

#### **ORGANIZATION OF CONFERENCES:**

4. “Pressing and Challenging Changes,” International Workshop, May 27-29, 2019, Alberta School of Business, University of Alberta, Edmonton, Alberta, Canada.
3. “Joint Workshop on Fiscal Federalism, Public, Regional and Urban Economics,” May 10-11, 2018, Catholic University of Brasilia, Brasilia, Brazil.
2. “Recent Advances in Economics,” International Conference, August 8-9, 2003, Catholic University of Brasilia, Brasilia, Brazil.

1. "Crime, Corruption and Violence: Theory and Applications to Brazil and Latin America," April 4-5, 2003, Tulane University, New Orleans, Louisiana.

#### **INVITED PAPER PRESENTATIONS:**

#### **PEER REVIEWED CONFERENCE PRESENTATIONS:**

101. "The Electric Gini: Income Redistribution through Energy Prices," 12<sup>th</sup> International Workshop on Empirical Methods in Energy Economics, Universite Laval, Quebec City, July 17-18, 2019 (with A. Levinson).
100. "Asymmetric Innovation Agreements under Environmental Regulation," 74<sup>th</sup> Annual Congree of the International Institute of Public Finance, Tempe, Finland, August 21 – 23, 2018.
99. "Asymmetric Innovation Agreements under Environmental Regulation," World Conference of Environmental and Resource Economists, University of Gothenburg, Gothenburg, Sweden, June 25 – 29, 2018 (with N. Aoyama).
98. "Asymmetric Innovation Agreements under Environmental Regulation," Canadian Economic Association, McGill University, Montreal, Canada, May 31 – June 2, 2018 (with N. Aoyama).
97. "How does Land Policy Affect the Size Distribution of Chinese Cities?" AREUEA International Conference, Jinan University, Guangzhou, China, June 12 – 15, 2018 (with J. Yu and G. Zhu)
96. "Asymmetric Innovation Agreements under Environmental Regulation," Public Economic Theory Conference, Hue, Vietnam, June 6 – 8, 2018 (with N. Aoyama).
95. "Asymmetric Innovation Agreements under Environmental Regulation," Canadian Economic Association, McGill University, Montreal, Canada, May 31 – June 2, 2018 (with N. Aoyama).
94. "Asymmetric Decentralized Leadership in a Heterogeneous Federation," Joint Workshop on Public, Regional and Urban Economics, Catholic University of Brasilia, Brazil, May 9 – 10, 2018.
93. "Decentralized Leadership," 73<sup>rd</sup> Annual Congress of the International Institute of Public Finance, Tokyo, August 18 – 20, 2017.
92. "Optimal Timing in Rotten Kid Families," 73<sup>rd</sup> Annual Congress of the International Institute of Public Finance, Tokyo, August 18 – 20, 2017.
91. "Optimal Timing in Rotten Kid Families," 18<sup>th</sup> Annual Meeting of the Association for Public Economic Theory, University Pantheon-Assas Paris II, Paris, July 11 – 13, 2017.
90. "Decentralized Leadership," First Workshop on Urban and Regional Economics, Pontificia Universidad Javeriana, Bogota, June 27 – 29, 2017.
89. "Optimal Timing in Rotten Kid Families," Central European Program in Economic Theory Workshop 2017, University of Udine, Udine, Italy, June 22 – 23, 2017.
88. "Optimal Timing in Rotten Kid Families," 16<sup>th</sup> Journees Louis-Andre Gerard-Varet, University of Aix-en-Provence, Aix-en-Provence, France, June 12 – 13, 2017.
87. "Decentralized Leadership," Workshop in Honour of Professor Richard Cornes, Australian National University, Canberra, Australia, September 2 – 3, 2016.

86. “Self-enforcing agreements under unequal nationally determined contributions,” 72<sup>nd</sup> Annual Congress of the International Institute of Public Finance, Lake Tahoe, United States, August 9 – 11, 2016.
85. “Self-enforcing agreements under unequal nationally determined contributions,” Annual Conference of the Association for Public Economic Theory, Rio de Janeiro, Brazil, July 11 – 13, 2016.
84. “Self-enforcing agreements under unequal nationally determined contributions,” 22<sup>nd</sup> Annual Conference of the European Association of Environmental and Resource Economists, Zurich, Switzerland, June 22 – 25, 2016.
83. “Self-enforcing agreements under unequal nationally determined contributions,” CEA 2016 Annual Conference, University of Ottawa, Ottawa, Canada, June 3 – 5, 2016.
82. “Self-enforcing agreements under unequal nationally determined contributions,” TI/ERC Conference on Combating Climate Change, Tinbergen Institute, Amsterdam, The Netherlands, April 21 – 22, 2016.
81. “Common labor market, attachment and spillovers in a large federation,” ANPEC 2015, Florianopolis, Brazil, December 8 – 11, 2015 (with Vander Lucas).
80. “Common labor market, attachment and spillovers in a large federation,” Canadian Public Economics Group 2015 Annual Conference, University of British Columbia Okanagan, Kelowna, Canada, October 16 – 17, 2015 (with Vander Lucas).
79. “Overlapping international green R&D agreements,” Conference – Economics of Innovation, Diffusion, Growth and the Environment, Grantham Research Institute and the Centre for Economic Performance (LSE), London, United Kingdom, September 16 – 18, 2015 (with Chikara Yamaguchi).
78. “Overlapping international green R&D agreements,” International Institute of Public Finance Congress 2015, Trinity College, Dublin, Ireland, August 20 – 23, 2015 (with Chikara Yamaguchi).
77. “Common labor market, attachment and spillovers in a large federation,” International Institute of Public Finance Congress 2015, Trinity College, Dublin, Ireland, August 20 – 23, 2015 (with Vander Lucas).
76. “Overlapping international green R&D agreements,” SING11-GTM2015, St. Petersburg University, St. Petersburg, Russia, July 8 – 10, 2015 (with Chikara Yamaguchi).
75. “Common labor market, attachment and spillovers in a large federation,” Public Economic Theory Conference 2015, University of Luxembourg, Luxembourg, July 2 – 4, 2015 (with Vander Lucas).
74. “Overlapping international green R&D agreements,” 21<sup>st</sup> Annual Conference, European Association of Environmental and Resource Economists, Helsinki, Finland, June 24 – 27, 2015 (with Chikara Yamaguchi).
73. “Overlapping international green R&D agreements,” 2015 International Energy Workshop, Abu Dhabi, United Arab Emirates, June 3 – 5, 2015 (with Chikara Yamaguchi).
72. “Common labor market, attachment and spillovers in a large federation,” 49<sup>th</sup> Annual Conference of the Canadian Economic Association, Ryerson University, Toronto, May 29 – 31, 2015 (with Vander Lucas).
71. “Overlapping international green R&D agreements,” 38<sup>th</sup> IAEE International Conference, Antalya, Turkey, May 25 – 27, 2015 (with Chikara Yamaguchi).
70. “Overlapping international green R&D agreements,” XII International Colloquium, University of Florida, Gainesville, Florida, May 20 – 22, 2015 (with Chikara Yamaguchi).

69. "Selective decentralized leadership," 2014 European Economic Association Meeting, Toulouse, France, August 25 – 29, 2014.
68. "Efficient earmarking under decentralized fiscal commitments," 2014 International Institute of Public Finance Congress, Lugano, Switzerland, August 20 – 23, 2014.
67. "Selective decentralized leadership," 2014 International Institute of Public Finance Congress, Lugano, Switzerland, August 20 – 23, 2014.
66. "Tax competition and federal equalization schemes with decentralized leadership," 2014 International Conference of the American Real Estate and Urban Economics Association (AREUEA), Reading, United Kingdom, July 9 – 11, 2014.
65. "Strategic effects of future environmental policy commitments: Climate change, solar radiation management and correlated air pollutants," 5<sup>th</sup> World Congress of Environmental and Resource Economists, Istanbul, Turkey, June 28 – July 2, 2014 (with Jingwen Qu).
64. "Selective Decentralized Leadership," Canadian Economics Association 2014 Conference, Simon Fraser University, Vancouver, Canada, May 29–June 1, 2014.
63. "Overlapping International Green R&D Agreements," 5<sup>th</sup> Workshop on Game Theory in Energy, Resources and Environment, HEC Montreal, Montreal, Canada, May 26-27, 2014 (with C. Yamaguchi).
62. "Canada's Oil Sands Innovation Alliance: Strategic Rationale and Effects," 53<sup>rd</sup> Meeting of the EWGCFM, Chania, Greece, May 22-24, 2014.
61. "Coalition-Proof Hub-and-Spoke and Multilateral Green Technological Agreements," 2014 Midwest Economic Association Meeting, Evanston, Illinois, March 21-23, 2014 (with C. Yamaguchi).
60. "Prestige Clubs," 41<sup>st</sup> National Meeting of Economics and Business Administration, Foz do Iguacu, December 10-13, 2013 (with R. Cornes).
59. "Perfectly Coalition-Proof Overlapping Environmental Agreements," 35<sup>th</sup> Meeting of the Brazilian Econometric Society, Foz do Iguacu, Brazil, December 10-13, 2013 (with X. Zhu).
58. "Perfectly Coalition-Proof Nash Equilibria for Overlapping Coalitions: With an Application to International Environmental Agreements, University of Michigan, Ann Arbor, Michigan, USA, October 11 – 13, 2013 (with X. Zhu).
57. "Strategic Effects of Future Environmental Policy Commitments: Climate Change, Solar Radiation Management and Correlated Air Pollutants," 23<sup>rd</sup> Annual Conference of the Canadian Resource and Environmental Economists, Brock University, Saint Catherines, Canada, September 27-29, 2013 (with J. Qu).
56. "Coalition-Proof Hub-and-Spoke and Multilateral Green Technology International Agreements," 69<sup>th</sup> International Institute of Public Finance Annual Congress, Taormina, Sicily, Italy, August 22-25, 2013 (with C. Yamaguchi).
55. "Canada's Oil Sands Innovation Alliance: A Win-win Strategy for Canada?," International Association for Energy Economics European Conference 2013, Dusseldorf, Germany, August 21-23, 2013.
54. "Perfectly Coalition-Proof Overlapping Environmental Agreements," 20<sup>th</sup> Annual Conference of the European Association of Environmental and Resource Economists, Toulouse, France, June 26-29, 2013 (with X. Zhu).

53. "Perfectly Coalition-Proof Overlapping Environmental Agreements," 32<sup>nd</sup> International Energy Workshop, Paris, France, June 19-21, 2013 (with X. Zhu).
52. "Canada's Oil Sands Innovation Alliance: Strategic Rationale and Effects," AERE 3<sup>rd</sup> Summer Conference, The Banff Centre, Banff, Alberta, Canada, June 7-8, 2013.
51. "Beautiful Economic Features of Public Landscaping in City Beautiful," 60. Simposio Internacional de Paisagismo, Universidade Federal de Lavras, Lavras, Brazil, May 15-18, 2013 (with A. Marasca).
50. "Perfectly Coalition-Proof Overlapping Environmental Agreements," Fourth Workshop on Game Theory in Energy, Resources and Environment, HEC Montreal, Montreal, Canada, November 28-29, 2012 (with X. Zhu).
49. "Correlated Transboundary Pollutants, Free Trade and Transfers: On the Efficiency and Stability of International Environmental Agreements," 4<sup>th</sup> World Congress of Environmental and Resource Economists, University du Québec et Montréal, Montréal, Canada, June 28-July 2, 2010 (with X. Zhu).
48. "Pivotal Players in Continental and Global Environmental Protocols: The Case of Canada," 17<sup>th</sup> Conference of the European Association of Environmental and Resource Economists, VU University Amsterdam, Amsterdam, June 24-27, 2009 (with X. Zhu).
47. "Prestige Clubs," Public Economic Theory (PET) Workshop, "Public Economics: Theoretical and Experimental Approaches," Ecole Normale Supérieure, Lyon, June 22-24, 2009 (with R. Cornes).
46. "Prestige Clubs," 10<sup>th</sup> International Meeting of the Association for Public Economic Theory, National University of Ireland, Galway, June 18-20, 2009 (with R. Cornes).
45. "Pivotal Players in Continental and Global Environmental Protocols: The Case of Canada," XXX Meeting of the Brazilian Econometric Society, Bahia, Brazil, December 10-12, 2008 (with X. Zhu).
44. "Interregional Competition Between Rawlsian Regional Governments in the Presence of Interregional Spillovers and Labor Attachment," XV Public Economics Meetings, University of Salamanca, Spain, February 7-8, 2008 (with N. Aoyama).
43. "Interregional Redistribution as a Cure to the Soft Budget Syndrome in Federations," 63<sup>rd</sup> Congress of the International Institute of Public Finance (IIPF), University of Warwick, England, August 27-30, 2007 (with N. Akai).
42. "Emissions Trading of Global and Local Pollutants, Pollution Havens and Free Riding," 63<sup>rd</sup> Congress of the International Institute of Public Finance (IIPF), University of Warwick, England, August 27-30, 2007 (with X. Zhu).
41. "Global Trading of Carbon Dioxide Permits with Noncompliant Polluters," 63<sup>rd</sup> Congress of the International Institute of Public Finance (IIPF), University of Warwick, England, August 27-30, 2007 (with X. Zhu).
40. "Emissions Trading of Global and Local Pollutants, Pollution Havens and Free Riding," 15<sup>th</sup> Annual Conference, European Association of Environmental and Resource Economists (EAERE), Thessaloniki, Greece, June 27-30, 2007 (with X. Zhu).
39. "Global Trading of Carbon Dioxide Permits with Noncompliant Polluters," 15<sup>th</sup> Annual Conference, European Association of Environmental and Resource Economists (EAERE), Thessaloniki, Greece, June 27-30, 2007 (with X. Zhu).

38. "Emissions Trading of Global and Local Pollutants, Pollution Havens and Free Riding," 8<sup>th</sup> Annual Conference of the Association of Public Economic Theorists (APET), Nashville, USA, July 6-8, 2007 (with X. Zhu).
37. "Interregional Redistribution as a Cure to the Soft Budget Syndrome in Federations," II Workshop on Fiscal Federalism, Institut d'Economia de Barcelona, Sevilla, Spain, June 21-22, 2007 (with N. Akai).
36. "Emissions Trading of Global and Local Pollutants, Pollution Havens and Free Riding," XXVIII Meeting of the Brazilian Econometric Society, Bahia, Brazil, December 6 – 8, 2006 (with X. Zhu).
35. "Tax Reform: Changing the Way Taxes are Collected or Managed by the Governments in the Hemisphere," Western Hemisphere Economic Officers Conference, US State Department, New Orleans, November 30 – December 1, 2006.
34. "Global Trading of Carbon Dioxide Permits with Noncompliant Polluters," 60<sup>th</sup> Congress of the International Institute of Public Finance, Milan, Italy, August 22-25, 2004 (with X. Zhu).
33. "Interregional Competition, Spillovers and Attachment in a Federation," XXXI Encontro Nacional de Economia (ANPEC), Porto Seguro, Brazil, December 11<sup>th</sup>, 2003 (with C. Yamaguchi).
32. "Global Trading of Carbon Dioxide Permits with Noncompliant Polluters," IV International Colloquium Globalization, New Technologies and Economic Relations, Brasilia, Brazil, December 4<sup>th</sup>, 2003 (with X. Zhu).
31. "Interregional Competition, Spillovers and Attachment in a Federation," Conference "Recent Advances in Economics," Catholic University of Brasilia, Brasilia, Brazil, August 9<sup>th</sup>, 2003 (with C. Yamaguchi).
30. "Crime and Punishment, and Corruption," Conference "Crime, Corruption and Violence: Theory and Applications to Brazil and Latin America," Tulane University, New Orleans, Louisiana, April 5<sup>th</sup>, 2003, (with C. Kahn).
29. "An 'Ideal Kyoto Protocol': Redistributive Transfers, Emissions Trading and Global Participation," Midwest International Economic Association Meetings, Notre Dame University, South Bend, Indiana, October 18-20, 2002 (with A. Caplan and R. Cornes).
28. "Equitable and Efficient International Schemes to Control Carbon Dioxide Emissions," Latin American and Caribbean Economic Association Meetings, Madrid, Spain, October 11-13, 2002 (with A. Caplan).
27. "Equitable and Efficient International Schemes to Control Carbon Dioxide Emissions," Murphy Institute Conference on the Political Economy of Policy Reform, Tulane University, New Orleans, LA, November 9-10, 2001 (with Arthur J. Caplan),.
26. "Optimal Control of Acid Rain in Japan and China: A Game-Theoretic Analysis," Sixth Occasional California Workshop on Environmental and Resource Economics, University of California, Santa Barbara, CA, October 25-26, 2001 (with Y. Nagase).
25. "Optimal Control of Acid Rain in Japan and China: A Game-Theoretic Analysis," Latin American and Caribbean Economic Association Meetings, Montevideo, Uruguay, October 18-20, 2001 (with Y. Nagase).
24. "How Effective and Efficient Can the Kyoto Protocol Be in Controlling Global Carbon Emissions?," 2001 Far Eastern Meeting of the Econometric Society, Kobe, Japan, July 20-22, 2001 (with A. Caplan and R. Cornes).

23. "How Effective and Efficient Can the Kyoto Protocol Be in Controlling Global Carbon Emissions?," Latin American and Caribbean Economic Association Meetings, Rio de Janeiro, Brazil, October 12-14, 2000 (with A. Caplan and R. Cornes).
22. "How Effective and Efficient Can the Kyoto Protocol Be in Controlling Global Carbon Emissions?," Fifth Occasional California Workshop on Environmental and Resource Economics, University of California, Santa Barbara, CA, May 5-6, 2000 (with A. Caplan and R. Cornes).
21. "Regional Inequalities and the Political Economy of Migration in China," The Political Economy of Migration, Murphy Institute, Tulane University, New Orleans, LA, March 24-25, 2000 (with L. Zhu).
20. "Incentive Effects of Tax Administration Performance Indicators," Taxation Conference, Columbia University - World Bank, Columbia University, New York, NY, February 17-18, 2000.
19. "Public Good Mix in a Federation with Incomplete Information," Fiscal Competition and Federalism in Europe, Zentrum für Europäische Wirtschaftsforschung GmbH (ZEW), Mannheim, Germany, June 2-3, 1999 (with R. Cornes).
18. "Pure Public Goods and Income Redistribution in a Federation with Decentralized Leadership and Imperfect Labor Mobility," Fiscal Competition and Federalism in Europe, Zentrum für Europäische Wirtschaftsforschung GmbH (ZEW), Mannheim, Germany, June 2-3, 1999 (with A. Caplan and R. Cornes).
17. "Performance-Based Wages in Tax Collection: The Brazilian Tax Collection Reform and Its Effects," Topics in the Design and Evaluation of Tax Policy and Administration, World Bank, Washington, DC, January 12-13, 1999 (with C. Kahn and J. Ziliak).
16. "Optimal Control of Acid Rain in a Federation with Decentralized Leadership and Private Information," Fourth Occasional Workshop on Environmental and Resource Economics, University of California, Santa Barbara, Santa Barbara, CA, October 16 - 17, 1998, (with Y. Nagase).
15. "Federal Public Goods, Interregional Transfers and Labor Mobility," Summer Institute for Theoretical Economics (SITE) Stanford University, Stanford, CA, July 6-10, 1998 (with A. Caplan and R. Cornes).
14. "Optimal Control of Acid Rain in a Federation with Decentralized Leadership and Private Information," Economic Integration Conference 1998, York University, Toronto, Canada, May 28-31, 1988 (with Y. Nagase).
13. "Rotten Kids, Purity and Perfection," Public Economic Theory Conference 1998, University of Alabama, Tuscaloosa, AL, May 28-31, 1998 (with R. Cornes),.
12. "Recipes for Turnovers: Reluctant Contributors Become Good Samaritans," Public Economic Theory Conference 1998, University of Alabama, Tuscaloosa, AL, May 28-31, 1998 (with R. Cornes).
11. "Optimal Control of Acid Rain in a Federation with Decentralized Leadership and Private Information," 53<sup>rd</sup> Congress of the *International Institute of Public Finance*, Kyoto, Japan, August 1997 (with Y. Nagase).
10. "Local Public Goods, Inter-Regional Transfers and Private Information," 52<sup>nd</sup> Congress of the *International Institute of Public Finance*, Tel-Aviv, Israel, August 1996 (with R. Cornes).
9. "Optimal Provision of Rivalrous Public Goods with Costly Exclusion, Corruption and Endogenous Fines," 1996 Meeting of the *European Economic Association*, Istanbul, Turkey, August 20-24, 1996 (with C. Kahn).

8. "Optimal Provision of Rivalrous Public Goods with Costly Exclusion, Corruption and Endogenous Fines," 1996 *Latin American Meeting of the Econometric Society*, Rio de Janeiro, Brazil, August 5-9, 1996 (with C. Kahn).
7. "Optimal Provision of Rivalrous Public Goods with Costly Exclusion, Corruption and Endogenous Fines," 3rd International Meeting of the *Society for Social Choice and Welfare*, Maastricht, The Netherlands, June 22-25, 1996 (with C. Kahn).
6. "Transfers Between Jurisdictions with Private Information: The Equity/Efficiency Tradeoff," *Royal Economic Society Conference*, Swansea, United Kingdom, April 1996 (with R. Cornes).
5. "À-la-Carte or Smorgasbord: How Should We Provide Multiple Public Goods Under Costly Monitoring?," 1994 Australasian Meeting of the Econometric Society, University of New England, New South Wales, Australia, July 13-15, 1994.
4. "À-la-Carte or Smorgasbord: How Should We Provide Multiple Public Goods Under Costly Monitoring?," Summer Meetings of the *North American Econometric Society*, Quebec, Canada, June 23-26, 1994.
3. "Optimal Provision of Public Goods under Costly Exclusion and Corruption," Midwest Economics Association Meeting, Indianapolis, Indiana, April, 1993 (with C. Kahn).
2. "Exclusion and Moral Hazard: The Case of Identical Demand," Midwest Mathematical Economics Meetings Fall 1992, University of Pittsburgh, Pittsburgh, Pennsylvania, October, 1992 (with C. Kahn).
1. "Exclusion and Moral Hazard: The Case of Identical Demand," 11th Latin American Meeting of the Econometric Society, Mexico City, Mexico, September, 1992 (with C. Kahn).

#### SEMINARS:

60. "Asymmetric Innovation Agreements under Environmental Regulation," Shanghai Jiao Tong University, Shanghai, China, August 20, 2018 (with N. Aoyama).
59. "Asymmetric Innovation Agreements under Environmental Regulation," University of Brasilia, Brasilia, Brazil, May 15, 2018 (with N. Aoyama).
58. "Optimal Timing in Rotten Kid Families," Hokkaido University, Sapporo, Japan, August 23, 2017.
57. "Decentralized leadership," Faculty of Business and Economics, University of Basel, Basel, Switzerland, October 17, 2016.
56. "Self-enforcing agreements under unequal nationally determined contributions," School of Economics, University of Adelaide, Adelaide, Australia, August 31, 2016.
55. "Self-enforcing agreements under unequal nationally determined contributions," School of Economics, University of Queensland, Brisbane, Australia, August 26, 2016.
54. "Self-enforcing agreements under unequal nationally determined contributions," School of Economics, University of Victoria, Wellington, New Zealand, August 18, 2016.
53. "Self-enforcing agreements under unequal nationally determined contributions," Department of Economics, Federal University of Juiz de Fora, Juiz de Fora, Brazil, April 28, 2016.
52. "Self-enforcing agreements under unequal nationally determined contributions," Department of Economics, University of California – Riverside, Riverside, United States, January 11, 2016.

51. "Overlapping International Green R&D Agreements," Department of Economics, Tulane University, New Orleans, United States, September 25, 2015 (with C. Yamaguchi).
50. "Efficient Earmarking under Decentralized Fiscal Commitments," Cube University, Osaka, Japan, June 20, 2015.
49. "Overlapping International Green R&D Agreements," Guanghua School of Management, Peking University, Beijing, China, June 9, 2015 (with C. Yamaguchi).
48. "Efficient Earmarking under Decentralized Fiscal Commitments," Faculdade de Economia e Administração, Universidade de São Paulo, São Paulo, April 30, 2015.
47. "Overlapping International Green R&D Agreements," Instituto de Energia e Meio Ambiente, Universidade de São Paulo, São Paulo, Brazil, April 24, 2015 (with C. Yamaguchi).
46. "Common Labor Market, Attachment and Spillovers in a Large Federation," São Paulo School of Economics, Fundação Getúlio Vargas, São Paulo, Brazil, April 22, 2015 (with Vander Lucas).
45. "Common Labor Market, Attachment and Spillovers in a Large Federation," Universidade de Brasília, Brazil, April 16, 2015 (with Vander Lucas).
44. "Overlapping International Green R&D Agreements," Departamento de Economia, Universidade Federal de Juiz de Fora, Brazil, October 2, 2014 (with C. Yamaguchi).
43. "Correlated Transboundary Pollutants, Free Trade and Transfers: On the Efficiency and Stability of International Environmental Agreements," (with Xie Zhu), Department of Economics, University of Alberta, Edmonton, Canada, March 12, 2010.
42. "Correlated Transboundary Pollutants, Free Trade and Transfers: On the Efficiency and Stability of International Environmental Agreements," (with Xie Zhu), Departamento de Economia, Universidade de Brasília, Brazil, December 4, 2009.
41. "Mudança Climática e Chuva Ácida: Acordos Internacionais Eficientes e Estáveis," (with Xie Zhu), Mestrado em Economia, Universidade Federal da Paraíba, João Pessoa, Brazil, November 26, 2009.
40. "Chains of International Environmental Agreements to Mitigate Correlated Transboundary Pollutants," (with Xie Zhu), Department of Economics, University of Calgary, Canada, July 8, 2009.
39. "Pivotal Players in Continental and Global Environmental Protocols: The Case of Canada," (with Xie Zhu), Department of Economics, Georgia State University, Atlanta, April 8, 2009.
38. "Emissions Trading of Global and Local Pollutants, Pollution Havens and Free Riding," (with Xie Zhu), Department of Economics, Monash University, Melbourne, Australia, September 8, 2008.
37. "Equitable and Efficient Federal Structures with Interregional Redistribution, Interregional Spillovers and Regional Attachment of Heterogeneous Labor," (with Naoto Aoyama), Economics Program, Research School of Social Sciences, Australian National University, Australia, August 22, 2008.
36. "Equitable and Efficient Federal Structures with Interregional Redistribution, Interregional Spillovers and Regional Attachment of Heterogeneous Labor," (with Naoto Aoyama), School of Economics, University of Queensland, Australia, August 15, 2008.
35. "Equitable and Efficient Federal Structures with Interregional Redistribution, Interregional Spillovers and Regional Attachment of Heterogeneous Labor," (with Naoto Aoyama), Department of Economics, Georgia State University, January 10, 2008.

34. "Emissions Trading of Global and Local Pollutants, Pollution Havens and Free Riding," (with Xie Zhu), Department of Economics, Georgia State University, February 14, 2007.
33. "Optimal Control of Acid Rain in China and Japan: A Game-Theoretic Analysis," (with Yoko Nagase), Department of Economics, University of Alabama, November 18, 2005, Tuscaloosa, AL.
32. "Global Trading of Carbon Dioxide Permits with Noncompliant Polluters," (with Xie Zhu), Department of Economics, Georgia State University, March 4, 2005, Atlanta, GA.
31. "Interregional Competition, Spillovers and Attachment in a Federation," (with Chikara Yamaguchi), Department of Economics, Universidade de Brasilia, November 28, 2003, Brasilia, DF, Brazil.
30. "Crime and Punishment, and Corruption: Who Needs 'Untouchables'?", (with Charles M. Kahn), Department of Economics, Universidade de Brasilia, June 27, 2003, Brasilia, DF, Brazil.
29. "Crime and Punishment, and Corruption: Who Needs 'Untouchables'?", (with Charles M. Kahn), Department of Economics, Universidade Federal de Pernambuco, May, 29, 2003, Recife, PE, Brazil.
28. "An 'Ideal Kyoto Protocol': Redistributive Transfers, Emissions Trading and Global Participation," (with Arthur J. Caplan and Richard C. Cornes), Department of Economics, Universidade Federal de Pernambuco, February 7, 2003, Recife, PE, Brazil.
27. "An 'Ideal Kyoto Protocol': Redistributive Transfers, Emissions Trading and Global Participation," (with Arthur J. Caplan and Richard C. Cornes), Department of Economics, Universidade de São Paulo, December 9, 2002, São Paulo, SP, Brazil.
26. "Public Good Mix in a Federation with Incomplete Information," (with Richard C. Cornes), Department of Economics, Kobe University of Commerce, July 17, 2002, Kobe, Japan.
25. "Crime and Punishment, and Corruption: Who Needs 'Untouchables'?" (with Charles M. Kahn), Universidade Católica de Brasília, June 28, 2002, Brasília, D.F., Brazil.
24. "Optimal Control of Acid Rain in Japan and China: A Game-Theoretic Analysis," (with Yoko Nagase), Department of Economics, University of Tennessee, September 21, 2001, Knoxville, TN.
23. "Optimal Control of Acid Rain in Japan and China: A Game-Theoretic Analysis," (with Yoko Nagase), School of Economics, Kwansai Gakuin University, July 19, 2001, Hyogo, Japan.
22. "Optimal Control of Acid Rain in Japan and China: A Game-Theoretic Analysis," (with Yoko Nagase), Department of Economics, Kobe University of Commerce, July 18, 2001, Kobe, Japan.
21. "Incentive Effects of Performance-Based Rewards in Tax Administration," Universidade de Brasília, October 11, 2000, Brasília, D.F., Brazil.
20. "How Effective and Efficient Can the Kyoto Protocol Be in Controlling Global Carbon Emissions?," (with Arthur J. Caplan and Richard C. Cornes), Universidade Católica de Brasília, October 10, 2000, Brasília, D.F., Brazil.
19. "Equitable and Efficient International Schemes to Control Carbon Dioxide Emissions," (with Arthur J. Caplan), University of Mississippi, September 15, 2000, University, MS.
18. "How Effective and Efficient Can the Kyoto Protocol Be in Controlling Global Carbon Emissions?," (with Arthur J. Caplan and Richard C. Cornes), and "Incentive Effects of Performance-Based Rewards in Tax Administration," School of Economics, Kwansai Gakuin University, June 23, 2000, Hyogo, Japan.

17. "Incentive Effects of Performance-Based Rewards in Tax Administration," Department of Economics, Kobe University of Commerce, June 9, 2000, Kobe, Japan.
16. "Incentive Effects of Performance-Based Rewards in Tax Administration," Institute of Social and Economic Research, Osaka University, June 7, 2000, Osaka, Japan.
15. "Incentive Compatible Performance Indicators for Tax and Customs Administrations," The World Bank, July 21, 1999, Washington, DC.
14. "Optimal Control of Acid Rain in a Federation with Decentralized Leadership and Private Information," (with Yoko Nagase), Graduate School of Economics and Management, Aomori Public College, June 25, 1999, Aomori, Japan.
13. "Optimal Control of Acid Rain in a Federation with Decentralized Leadership and Private Information," (with Yoko Nagase), Department of Economics, Kobe University of Commerce, June 9, 1999, Kobe, Japan.
12. "Pure Public Goods and Income Redistribution in a Federation with Decentralized Leadership and Imperfect Labor Mobility," (with Arthur J. Caplan and Richard C. Cornes). Department of Economics, Tulane University, December 12, 1998, New Orleans, Louisiana.
11. "Public Good Mix in a Federation with Incomplete Information," (with Richard C. Cornes). Department of Economics, Oregon State University, November 21, 1998, Corvallis, Oregon.
10. "Pure Public Goods and Income Redistribution in a Federation with Decentralized Leadership and Imperfect Labor Mobility," (with Arthur J. Caplan and Richard C. Cornes), Department of Economics, Kobe University of Commerce, August 25, 1998, Kobe, Japan.
9. "Recipes for Turnovers: Rotten Contributors Become Good Samaritans," (with Richard C. Cornes), Department of Economics, Iowa State University, March 5, 1998, Ames, Iowa.
8. "Crime and Punishment, and Corruption: Who Needs 'Untouchables'?" (with Charles M. Kahn). Department of Economics, University of Illinois, March 2, 1998, Champaign-Urbana, Illinois.
7. "Rotten Kids, Purity and Perfection," (with Richard C. Cornes), Universidade de Brasília, July 1997, Brasília, Brazil.
6. "Optimal Provision of Rivalrous Public Goods with Costly Exclusion, Corruption and Endogenous Fines," (with Charles M. Kahn), Department of Economics, University of Kent, April 30, 1996, Kent, UK.
5. "Optimal Provision of Rivalrous Public Goods with Costly Exclusion, Corruption and Endogenous Fines," (with Charles M. Kahn), Department of Economics, University of Dundee, April 26, 1996, UK.
4. "Transboundary Pollution and Migration in Federal Systems," Department of Economics, Australian National University, July 20, 1995, Canberra, Australia.
3. "Preemption and Demand Coordination in the Competitive Provision of Local Bus Services," (with Chris J. Ellis), Department of Economics, Australian National University, September 1, 1994, Canberra, Australia.
2. "Intergovernmental Externalities and Moral Hazard," at the Economic Modelling and Intergovernmental Relations Workshop, Federalism Research Centre, Australian National University, July 22, 1994, Canberra, Australia.
1. "À-la-Carte or Smorgasbord: How Should We Provide Multiple Public Goods Under Costly Monitoring?" Oregon State University, April 1994, Corvallis, Oregon.

#### **COURSES TAUGHT OR CURRENTLY TEACHING AT UNIVERSITY OF ALBERTA**

Fall 2021: Business Economics, BUS 820 – A1 (Executive MBA)

Winter 2021: Natural Resources, Energy and the Environment Capstone, BUEC 663-B1

Winter 2021: Natural Resources, Energy and the Environment Capstone, BUEC 663-851

Winter 2020: International Tour, BUS 855 – B1 (Executive MBA)

Winter 2019: Business Economics, Organization and Management, BUEC 311 – B1

Fall 2018: Business Economics, Organization and Management, BUEC 311 – A1

Winter 2018: Business Economics, Organization and Management, BUEC 311 – B1, B2, B4.

Winter 2016: Natural Resources, Energy and the Environment Capstone, BUEC 663-851

Winter 2016: Natural Resources, Energy and the Environment Capstone, BUEC 663-B1

Winter 2015: Natural Resources, Energy and the Environment Capstone, BUEC 663-851

Winter 2015: Natural Resources, Energy and the Environment Capstone, BUEC 663-B1

Winter 2014: Strategy in Business Economics, BUEC 488/686 (MBA)

Winter 2013: Economics of Competition and Firm Behavior: Strategic Interactions, BUEC 686 (MBA)

Student Supervision:

CABREE's Market Friction Project: Vinod Doddi, Pyushi Kar, Jean-Paul Tsotsos, Avalon Ferrao (MBA)

CAPES (Brazil) PhD Sandwich: Supervisor (U of A); Lucas Motta, January 2014 – November 2014

MBA Thesis: Supervisor; Krista Pedry, March 2014 – January 2015

Marketing PhD: Committee member; Christy (Ke) Tu, June 2013 – July 2016

**SERVICE AT UNIVERSITY OF ALBERTA**

Academic Director, Centre for Applied Business Research in Energy and Environment, July 1, 2012 – March 15, 2015.

Member, University of Alberta – Water Initiative Cross Disciplinary Council, April, 2013

Member, University of Alberta – Energy Council, October, 2012-

Member, University of Alberta – Latin American Council, December, 2012-

Team Leader, University of Alberta – SCENEREI Theme 4, February, 2013.

Chair, NREE Recruiting Committee, November 2012 – March 2013.

External Member, Dean's Advisory Selection Committee (Economics), 2013-2014.

Alternate Member, Faculty Evaluation Committee (FEC), Business School, 2013-2014.

Elected Member, FEC, Business School, 2014-2016.

## **RESEARCH GRANTS**

“Understanding of Overcapacity and Oversupply Issues in Canadian and Chinese Energy Supply Sectors,” University of Alberta, \$40,000, April 8, 2015 – January 31, 2017.

“Analysis of Geo-Political Issues: State-Owned Enterprises (SOEs) and Foreign Direct Investment,” University of Alberta, \$10,000, April 8, 2015 – January 31, 2017.

“Strategic eco-labelling with a credible certifier,” School of Retailing, University of Alberta, Walmart Seed Grant, \$8,000, December 1, 2012 – December 31, 2013.

“Research and Policy in Market Frictions Workshop,” Alberta Energy, \$125,000 April 15, 2013 – March 31, 2014 (CABREE; with Richard Dixon).

“Liquified Natural Gas Project,” Pieridae Energy, \$12,000, June 15, 2013 – September 30, 2013 (CABREE; with Richard Dixon).

## **COURSES TAUGHT AT GEORGIA TECH:**

Spring 2012: Microeconomic Theory II (PhD level, ECON 7013)

Fall 2011: Environmental Economics I (PhD level, ECON 7102)

Spring 2011: Environmental Economics (Master level, ECON 6380); Microeconomic Theory II (PhD level, ECON 7013)

Spring 2010: Economics of Environment (Undergraduate level, ECON 4440); Game Theory (Undergraduate level, ECON 4813); Environmental Economics (Master level, ECON 6380)

Spring 2009: Economics of Environment (Undergraduate level, ECON 4440); Game Theory (Undergraduate level, ECON 4813); Environmental Economics (Master level, ECON 6380)

Summer 2008: Advanced Microeconomic Analysis (Undergraduate level; ECON 3110).

Spring 2008: Individual Research 21450 (Undergraduate level, ECON 4910); Environmental Economics (Master level, ECON 6380); Master’s Thesis (Master level, ECON 7000); Special Problems 23997 (Master level, ECON 8990).

Fall 2007: Microeconomic Analysis (Master level; ECON 6106); Game Theory (Undergraduate level, ECON 4803).

Summer 2007: Public Economics (Undergraduate level; ECON 4460); Special Problems (Master level; ECON 8990).

Spring 2007: Development Economics (Master level; ECON 6360); Mathematical Economics (Undergraduate level; ECON 4170); Independent Study (Master level; ECON 4910).

Fall 2006: Microeconomic Analysis (Master level; ECON 6106).

Student Supervision:

PhD Program: Chair, PhD Thesis (on-going): Xiuli Sun.

Master's Program: Chair, Master’s Theses: (1) Kelly P. Guedes, Spring 2008; (2) Celso V. Souza Junior, Spring 2008; (3) Jingwen Qu (on-going); (4) Yue Fang (on-going).

Undergraduate Program: Advisor, Undergraduate Senior Papers: (1) Catherine Gillespie, Spring 2008; (2) Mathew Ngo, Spring 2009; (3) Sara Scruggs, Fall 2009; (4) Mathew Phelan, Fall 2010.

#### **SERVICE AT GEORGIA TECH:**

Fall 2011 – Director, PhD Program; Chair, PhD Program Committee (School of Economics); Chair of Promotion & Tenure Committee (School of Economics); Member, Promotion & Tenure Committee (Ivan Allen College); Member, Institute Graduate College Curriculum Committee (Institute).

Fall 2010 – Spring 2011: Director, PhD Program; Chair, PhD Program Committee (School of Economics); Co-Chair, Junior Search Committee (School of Economics); Chair of Promotion & Tenure Committee (School of Economics); Chair of Promotion & Tenure Committee (Ivan Allen College); Acting Chair of Ivan Allen College Latin American Advisory Committee (Ivan Allen College); Member, Institute Graduate College Curriculum Committee (Institute); Member, Institute's Exploratory Mission in Rio de Janeiro, Brazil – in February 2011 (Institute); Leader of Initiative to Develop Memorandum of Understanding between Georgia Tech and University of Brasilia – MOU completed in January 2011 (Institute).

Fall 2009 – Spring 2010: Director, PhD Program; Chair, PhD Program Committee (School of Economics); Chair of Senior Promotion & Tenure Committee (School of Economics); Member, Institute Graduate College Curriculum Committee (Institute).

Fall 2008 – Spring 2009: Director, PhD Program; Member, Promotion & Tenure Committee (School of Economics); Member, Institute Graduate College Curriculum Committee (Institute).

Fall 2007 – Spring 2008: Chair, PhD Program Committee; Chair, Junior Search Committee (Trade, Development and Environmental); Member, Promotion & Tenure Committee; Member, Senior Search Committee (School of Economics).

Fall 2006 – Spring 2007: Chair, PhD Program Committee; Member, Promotion & Tenure Committee; Member, Senior Search Committee (School of Economics).

#### **COURSES TAUGHT AT TULANE UNIVERSITY:**

Lagniappe 2006: Advanced Topics in Microeconomics (Undergraduate/Master levels; ECON 401/601).

Spring 2006: Macroeconomics (Principles, ECON-102-05); Advanced Price Theory I (PhD level; ECON-751-01).

Spring 2005: Industrial Organization II (PhD level; ECON-712-01); Economic Development Theory II (PhD level; ECON-772-01).

Fall 2004: Public Finance I (PhD level; ECON-767-01).

Spring 2003: Environment and Natural Resources (Undergraduate level; ECON 333-01); Special Studies in Economics, "Interregional Competition", w/ Naoto Aoyama (PhD level; ECON-798-08); Independent Studies, "Environmental Economics", w/ Xie Zhu (PhD level; ECON-799-12); Independent Studies, "Resource Allocation in Economics", w/ Yingge Lin (PhD level; ECON-799-31).

Fall 2002: Dissertation Workshop (PhD level; ECON-713-01); Environment and Natural Resources (Undergraduate level; ECON-333); Core Seminar in Latin American Studies - Economics Module (PhD level; LAST-700-02); Independent Studies (PhD level; ECON-798-08, ECON-798-12, ECON-798-31, ECON-798-93).

Spring 2002: Industrial Organization II (PhD level; ECON-712-01); Economic Development Theory II (PhD level; ECON-772-01).

Fall 2001: Intermediate Microeconomics (Undergraduate level; ECON-301-02); Public Finance II (PhD level; ECON-768-01); Core Seminar in Latin American Studies - Economics Module (PhD level; LAST-700-02).

Spring 2001: Macroeconomics (Principles; ECON-102-02); Environment and Natural Resources (Undergraduate level; ECON-333).

Fall 2000: Macroeconomics (Principles; ECON-102-03); Advanced Price Theory I (PhD level; ECON-751-01).

Spring 2000: Macroeconomics (Principles; ECON-102-02); Environment and Natural Resources (Undergraduate level; ECON-333).

Fall 1999: Macroeconomics (Principles; ECON-102-01); Public Finance II (PhD. level; ECON-768-01).

Student Supervision:

PhD Students: (1) Chair, PhD committee for Li Zhu (8/15/03); (2) Chair, PhD committee for Naoto Aoyama (11/15/04); (3) Chair, PhD committee for Xie Zhu (8/15/05); (4) Chair, PhD committee for Xudong Chen (8/15/06).

#### **SERVICE AT TULANE UNIVERSITY:**

Fall 2005 – Spring 2006: Department of Economics – Chair, Newcomb College Committee (University Committee); Stone Center for Latin American Studies - Admissions Committee (University Committee); Brazilian Studies Advisory Committee (University Committee).

Fall 2004: Department of Economics – Graduate Program Director, Newcomb College Committee (University Committee); Stone Center for Latin American Studies - Admissions Committee (University Committee); Brazilian Studies Advisory Committee (University Committee).

Fall 2002 - Spring 2003: Department of Economics - Graduate Program Director; Stone Center for Latin American Studies - Admissions Committee (University Committee) and Curriculum Committee (University Committee); Brazilian Studies Advisory Committee (University Committee).

Fall 2001 - Spring 2002: Department of Economics - Graduate Program Director; Stone Center for Latin American Studies - Admissions Committee (University Committee); Brazilian Studies Advisory Committee (University Committee).

Fall 2000 - Spring 2001: Seminar Series Coordinator (Department Committee), Brazilian Studies Advisory Committee (University Committee).

Fall 1999 - Spring 2000: Member, Search Committee (Department Committee).

#### **COURSES TAUGHT AT THE UNIVERSITY OF OREGON:**

Spring 1999: Economic Development and Growth (PhD level); Topics in Mathematical Economics (Undergraduate and Master levels).

Fall 1998: Core Microeconomics - Consumer Theory (PhD level); Economic Development and Growth (Undergraduate and Master levels); Mathematics for Economists (Master and PhD levels).

Spring 1998: Economic Development and Growth (Undergraduate and Master levels); Topics in Mathematical Economics (Undergraduate and Master levels).

Fall 1997: Core Microeconomics - Consumer Theory (PhD level); Public Economics (Undergraduate and Master levels); Mathematics for Economists (Master and PhD levels).

Winter 1997: Economic Development and Growth (Undergraduate and Master levels);

Fall 1996: Core Microeconomics - Consumer Theory (PhD level); Advanced Microeconomic Theory (Undergraduate and Master levels); Mathematics for Economists (Master and PhD levels).

Summer 1996: Issues in Public Economics 340 (Undergraduate level).

Winter 1996: Public Economics (Undergraduate and Master levels); Public Economics (PhD level).

Fall 1995: Core Microeconomics - Consumer Theory (PhD level); Advanced Microeconomic Theory (Undergraduate and Master levels).

Spring 1995: Public Economics (PhD level).

Winter 1995: Public Economics (Undergraduate and Master levels); Economic Development and Growth (Undergraduate and Master levels).

Fall 1994: Core Microeconomics - Consumer Theory (PhD level).

Spring 1994: Economic Development and Growth (Undergraduate and Master levels); Problems and Issues in Developing Economies (Undergraduate level).

Winter 1994: Public Economics (PhD level).

Fall 1993: Public Economics (Undergraduate and Master levels).

Student Supervision:

PhD Students: (1) Co-chair, PhD committee for Arthur Caplan (May 1996); (2) Chair, PhD committee for Yoko Nagase (August 1999); (3) Member, PhD committee for David Smith; (4) Outside member, PhD committee for Nila Medina (August 1996); (5) Outside member, PhD committee for Sangwoo Heo (October 1997); (6) Member, Field Paper committee for Jim Lin (1995); and (7) Member, Field Paper committee for Scott Merryman (May 1999).

Master Students: Chair for: (1) Paul Hibbard (June 1995); (2) I-Chun Liu (August 1994); (3) Christopher Lundeen (June 1995); (4) Henry Martin (December 1994), (5) Yongsoo Lee (August 1996) (6) Kunil Hwang (May 1997) and (7) Konstantin Pisarchook (June 1996). Co-chair for: (8) Alexander Hauser (November 1995).

Undergraduates: Honors Thesis Advisor or Study Supervisor for: (1) Dean McKinney (Winter 1994); (2) Michelle Lee (Spring 1994); (3) Takashi Hasegawa (Winter 1995) and (Fall 1996); and (4) Hirofumi Tokushige (Winter 1995); (5) Stephanie Fox (Spring 1995); (6) Ricardo Davico (Spring 1996), (7) Yoshiyuki Kawai (Spring 1996), and (8) Victor Chi-Lok Yip (Winter 1996).

#### **SERVICE AT THE UNIVERSITY OF OREGON:**

Fall 1998 - Spring 1999: Member, Core Exam Committee (Department Committee); Graduate Placement Director (Department Committee); Chair, Committee on Outside Funding (Department Committee); Member, Environmental Issues Committee (University Committee); Member, International Studies Committee (University Committee).

Fall 1997 - Spring 1998: Member, Core Exam Committee (Department Committee); Graduate Placement

Director (Department Committee); Chair, Committee on Outside Funding (Department Committee); Member, Masters Program Committee (Department Committee); Member, Environmental Issues Committee (University Committee).

Fall 1996 - Spring 1997: Member, Seminar Committee (Department Committee); Member, Core Exam Committee (Department Committee); Graduate Placement Director (Department Committee); Chair, Committee on Outside Funding (Department Committee); Member, Committee for Latin American Studies (University Committee); Member, Teaching Awards Committee (University Committee).

Fall 1995 - Spring 1996: Member, Seminar Committee (Department Committee); Member, Core Exam Committee (Department Committee); Member, Undergraduate Committee (Department Committee); Member, PhD Program Committee (Department Committee); Graduate Placement Director (Department Committee); Member, Committee for Latin American Studies (University Committee).

Fall 1994 - Spring 1995: Member, Seminar Committee (Department Committee); Member, Core Exam Committee (Department Committee); Member, Undergraduate Committee (Department Committee); Member, PhD Program Committee (Department Committee); Member, Search Committee (Department Committee); Member, Committee for Latin American Studies (University Committee).

Fall 1993 - Spring 1994: Member, Seminar Committee (Department Committee); Member, Committee for Latin American Studies (University Committee).

#### **REFEREEING:**

*American Economic Review, Journal of Political Economy, Economic Journal, Journal of Public Economic Theory, Journal of Environmental Economics and Management, Journal of Public Economics, Journal of Urban Economics, RAND Journal of Economics, Regional Science and Urban Economics, Resource and Environmental Economics, Review of Economic Design, Southern Journal of Economics, International Tax and Public Finance, Quarterly Review of Economics and Finance, ISRN Economics, European Economic Review, Journal of Population Economics, International Environmental Agreements, Canadian Journal of Economics, Journal of International Money and Finance.*

#### **RESEARCH SUPPORT FROM NON-UNIVERSITY SOURCES:**

1. Co-investigator, (with Charles M. Kahn), "Exclusion, Free Riding and Collusion," research grant from the Institutional Reform and the Informal Sector (IRIS) program at the University of Maryland at College Park (with Charles M. Kahn), 1992-1993. Concluded in June 1994.
2. Principal researcher, (with Yoko Nagase), "Optimal Control of Acid Rain in Japan and China: A Game-Theoretic Analysis," research grant from the International Centre for the Study of East Asia Development (ICSEAD), Japan, April 2000 - March 31, 2001.

#### **UNIVERSITY HONORS AND AWARDS:**

Social Science Seed Grant, University of Oregon, June 1994.  
Junior Professorship Award, College of Arts and Sciences, University of Oregon, 1995, 1996, 1997, 1998.  
Summer Fellowship Award, Committee on Research Summer Fellowships, Tulane University, 2000.  
Summer Research Award, Stone Center for Latin American Studies, Tulane University, 2002.