5th GARS Summer School 2024

21-22 June 2024 (Friday & Saturday)

Antwerp Management School, Boogkeers 5, 2000 Antwerpen (Belgium)

GARS, the University of Antwerp, and the Antwerp Management School are pleased to host the 5th GARS Summer School 2024, which is supported by the Air Transport Research Society, the Bremen University of Applied Sciences, The Hong Kong Polytechnic University, Hogeschool van Amsterdam and airliners.de. The Summer School will start right after the 21st GARS Junior Workshop. Attendance is free and there are no registration fees. We encourage all participants to join the German Aviation Research Society (GARS) community for additional benefits and opportunities. The membership form can be found online.

PROGRAMME

Friday 21 June 14:00 – 18:00		
Aviation Business Review	Barry Humphreys, BKH Aviation (Reigate, United Kingdom)	Liberalisation & Regulation
	Brian Pearce, University College London (London, United Kingdom)	Airline Profitability
	David Starkie, Case Associates (London, United Kingdom)	Airport Production Functions: an Overview
Round table discussion with speakers and participants		
Dinner at your own expense. Place TBA.		
Saturday, 22 June, 9.00 to 18.00		
Research Methods	Sven Buyle, University of Antwerp (Antwerp, Belgium)	Crafting Research Questions
	Ane Elixabete Ripoll- Zarraga, University of Surrey (Visiting Researcher) (Guildford, United Kingdom)	Critical Assessment of Published Data
	Achim I. Czerny, The Hong Kong Polytechnic University (Hongkong, SAR)	Modelling Aviation Markets
Lunch		
Airport Economics & Regulation	Cathal Guiomard, Dublin City University (Dublin, Ireland)	Airport Ownership, Finance, and Investment
	Peter Forsyth, Monash University (Melbourne, Australia)	Pricing & Capacity Allocation
	Hans-Martin Niemeier, Hochschule Bremen (Bremen, Germany)	Slots & Airport Charges
	Víctor Valdés, Universidad Anáhuac (México, México)	Slot Allocation at Mexico City International Airport
Round table discussion with speakers and participants		
Dinner is kindly sponsored by the University of Antwerp and the Antwerp Management School. Place TBA.		

Registration, and contact

Please register at: https://forms.office.com/r/tshHRzatVx
Contact for further details: Hans-Martin.Niemeier@hs-bremen.de For updates visit http://www.garsonline.de

Hotel suggestions: Theater Hotel (https://en.theater-hotel.be/), Hampton by Hilton (https://www.hilton.com/en/hotels/anrcshx-hampton-antwerp-central-station/rooms), Citybox Antwerp (https://citybox.no/nl/antwerp/), Holiday Inn Express (https://www.ihg.com/holidayinnexpress/hotels/de/de/antwerp/anrcc/hoteldetail), and Bernardin Guesthouse (https://www.bernardin-antwerpen.be/)

Your lecturers (in alphabetic order)

Dr **Sven Buyle** is a Principal Research Fellow at the Department of Transport and Regional Economics, Faculty of Business and Economics, University of Antwerp. He earned his PhD in Applied Economics and master's in business engineering in Supply Chain from the same university. Sven research focuses on air transport economics, particularly concerning air navigation service providers, airport sustainability, and regional aviation strategies. He has contributed to several national and international research projects for high-profile clients, including DG MOVE, the Belgian Civil Aviation Authority (BCAA), and Brussels Airport Company. Sven has helped organise relevant conferences such as the Air Transport Research Society (ATRS) Conference (2017, 2022) and will host the 2024 European Aviation Conference (EAC). Sven's scholarly contributions include numerous publications in top journals like the Journal of Air Transport Management. Sven teaches courses on Air Transport Economics and Management and Research Methodology. He is a member of the executive committee of the EAC Institute.

About the session: *Crafting Research Questions*
A good and sound research question is the basis for any research. This will become an interactive session to help you question and reflect on relevant research questions. By the end of the session, you will leave with either a first draft or a refined version of the research question(s) for your PhD.
Recommended readings
(2016) Chapters 3 and 4. In Booth, W. C., Colomb, G. G., Williams, J. M., Bizup, J., & Fitzgerald, W. T. (Ed.). *The craft of research* (4th ed.). University of Chicago Press.

Dr **Achim I. Czerny** is a full Professor at the Department of Logistics and Maritime Studies (LMS) at the Hong Kong Polytechnic University and the director of the undergraduate academic program in Aviation Management and Logistics and was the head of the local organising committee of the International Transportation Economics Association (ITEA) School and conference hosted by LMS in 2018. He has been the Chairman of the German Aviation Research Society (GARS) since December 2023. Additionally, he holds editorial positions at the Journal of the Air Transport Research Society (JATRS), Journal of Shipping and Trade, Review of Transport Economics, and Transport Policy. Achim holds PhD in Economics from TU Berlin after studying Economics at the same institution. Previously, he worked as a researcher at the VU University of Amsterdam, Department of Spatial Economics, and as an Assistant Professor of Regulatory Economics at the WHU – Otto Beisheim School of Management. He is a member of the Scientific Advisory Board of the European Aviation Conference (EAC) and an executive committee member of the Air Transport Research Society (ATRS). Achim has authored numerous research papers in transportation and economics journals and received the Certificate of Excellence in Reviewing from Transportation Research Part B in 2013 and Transportation Research Part D in 2022, and the Best Overall Paper Prize of the ITEA Conference on Transportation Economics 2014 (with Professor Anming Zhang)

About the session: *Modelling Aviation Markets*

In densely populated and economically dynamic regions worldwide, passengers often have access to multiple airports nearby. Examples include Beijing, Hong Kong, the Greater Bay Area, London, New York, and Tokyo. Within these regions, some airports may have unused capacity while others face severe congestion due to factors like geographic accessibility and facility characteristics. Policymakers in such regions share a common challenge: effectively managing the allocation of air traffic among airports. This session will explore methods for analysing misallocation and quantity effects using various functional forms for policy analysis.

Recommended readings

Czerny, A. I., & Fukui, H. (2023). Misallocation in multiple airport regions. *Journal of the Air Transport Research Society, 2*(1), 100010.

Dr **Peter Forsyth** is a Professor of Economics who joined Monash University in 1997. His research has been on transport economics, the economics of aviation, and the economics of tourism. Recently he has researched economic policies to reduce emissions of aviation. Recent publications are *Aviation and Climate Change: Economic Perspectives on Greenhouse Gas Reduction Policies* (with Frank Fichert and Hans-Martin Niemeier) and 2023 *Airport Economics* (with Cathal Guiomard and Hans-Martin Niemeier). Peter was an editor of *Economic Regulation of Urban and Regional Airports, Incentives, Efficiency and Benchmarking* (Springer). In 2015 was awarded the Fellowship of the Air Transport Research Society (ATRS)

About the session: *Pricing & Capacity Allocation*

Airport pricing involves setting fees for using facilities and services which significantly impact airport profitability and the behaviour of airlines and passengers. Pricing strategies vary depending on airport capacity. Adequate airport capacity sets prices to cover operational costs and generate revenue without affecting demand. In contrast, airports with excess demand use higher fees during peak times to manage congestion and allocate resources efficiently. Similarly to public utility pricing, airport pricing aims to balance cost recovery with public service provision, ensuring reliable and accessible services while considering economic and social impacts. Managing small airports which struggle financially involves evaluating their economic viability, regional connectivity, and community impact. Congestion occurs when demand exceeds capacity, leading to delays and higher costs. Responses to congestion include queuing systems, dynamic pricing, and time slot allocations to ensure efficient capacity use and reduce delays. The session will discuss these issues on airport pricing, capacity, costs, and queuing pricing slots.

Recommended readings

Brown, S., & Sibley, D. (1986). *The theory of public utility pricing* (Chapters 2, 3, and 4). Cambridge University Press.

Bruckner, J. (2002). Airport congestion when carriers have market power. *American Economic Review, 92*(5), 1357-1375.

Forsyth, P., Guiomard, C., & Niemeier, H.-M. (2023). Chapter 4. In *Airport economics*. Routledge.

Morrison, S. (1982). The structure of landing fees at uncongested airports: An application of Ramsey pricing. *Journal of Transport Economics and Policy, 16*(2), 151-159.

Dr **Cathal Guiomard** is an Associate Professor of Aviation Management at the Business School of Dublin City University (DCU) in Ireland and the director of DCU's (undergraduate) academic program in Aviation Management. Cathal studied Economics in Ireland and at Oxford University and holds a PhD in Economics from University College Dublin. Previously, he was the Commissioner (CEO) of the aviation regulatory agency in Ireland. He is the current chair of the committee organising the 2025 European Aviation Conference (which takes place in Antwerp). He is a co-author of the recently published *Airport Economics* (with Peter Forsyth and Hans-Martin Niemeier). Cathal has published research papers on topics in the economic regulation of aviation.

About the session: *Airport Ownership, Finance, and Investment*
The session will discuss questions such as types of airport ownership that promote efficiency and service quality at reasonable cost. How does ownership change managerial objectives and monitoring of performance? To whom do the benefits accrue, absent competition or economic regulation? What has been the quality of airport investment decision-making and project delivery? How could investment performance be improved?

Recommended readings

EU Court of Auditors. (2014). *EU-funded airport infrastructures: poor value for money*. Retrieved from http://eca.europa.eu

Forsyth, P. (2017). Pre-financing airport investments, efficiency and distribution: Do airlines really lose? *Journal of Air Transport Management*, 67, 259-267. https://doi.org/10.1016/j.jairtraman.2017.06.003

Forsyth, P., Niemeier, H.-M., & Njoya, E. (2021). Economic evaluation of investments in airports: Recent developments. *Journal of Benefit-Cost Analysis*, 12, 85–121. https://doi.org/10.1017/bca.2021.8

Graham, A. (2018). *Managing airports: An international perspective* (5th ed.). Abingdon: Routledge

Poole, R. (2021). *Annual privatization report: aviation*. Reason Foundation. Retrieved from https://reason.org/wp-content/uploads/annual-privatization-report-2021-aviation.pdf

Dr **Barry Humphreys** is a former Head of Air Services Policy at the UK Civil Aviation Authority (CAA) and Director of External Affairs and Route Development at Virgin Atlantic Airways. After retirement from Virgin Atlantic, he served two terms (six years) as Non-Executive Chairman of BATA (now Airlines UK), the trade body for UK airlines, and several years was a Non-Executive Director of NATS, the UK air traffic control company. As a consultant specialising in aviation strategy and regulation, Barry carried out numerous projects for airlines, airports, governments, and others. He continues to write and lecture widely on aviation issues. In the UK 2016 New Year Honours List, he was

awarded a CBE (Commander of the Order of the British Empire) for services to aviation and charity.

About the session: *Liberalisation & Regulation*

The regulation of the airline industry has transformed over the past 80 years. Post-World War II, the industry was inefficient, state-owned, and protected from competition. Over time, efficiency improved, reducing costs and fares, and driving demand. Many markets shifted to a more open and competitive regulatory environment, reducing government control over airlines. However, issues remain, especially in countries that haven't liberalized their aviation markets. The industry is still nation-based, lacking the globalization seen in other industries. This stems from the 1944 Chicago Conference, which set ownership and control rules for airlines. These outdated rules have led to persistent unprofitability and periodic bailouts. Airlines have formed international alliances as a partial solution, but this falls short of true cross-border consolidation. This session will examine the evolution of airline regulation from the Chicago Convention to today, highlighting progress and ongoing challenges. It will explain the importance and difficulty of reforming airline ownership and control rules.

Recommended readings

Barry Humphreys: 'The Regulation of Air Transport. From Protectionism to Liberalisation, and Back Again.' Routledge, Abingdon UK, 2023.

Prof. Dr **Hans-Martin Niemeier** is a Director of the Institute for Transport and Development at Bremen University of Applied Sciences. Hans-Martin is the Honorary Chairman for Life of the German Aviation Research Society (GARS), a managing member of the Advisory Board of the European Aviation Conference (EAC) and Chair of the COST Action: Air Transport and Regional Development (ATARD). He led the research projects *German Airport Performance* and *German Aviation Benchmarking* and the studies *Airport benchmarking by economic regulators,* and *Market power of Amsterdam airport* for the Netherlands Competition Authority, *Comparative study (benchmarking) of the efficiency of Advisor's airport operations* for the Norwegian Ministry of Transport and Communication. From 2014 to May 2019, Hans-Martin was a member of the Performance Review Body of the Single European Sky. He has published on privatisation, regulation and competition of airports, the reform of slot allocation and airline and airport alliances.

About the session: *Slots & Airport Charges*

The session will discuss the relationship between slots and charges. The analysis of airport capacity problems has mainly focused on slots and optimal congestion charges in US airports with monopolistic airlines. However, the role of airport charges, particularly the price structure, has been less examined for airports with slots. Most airports with excess demand still use traditional weight-based charges, disadvantaging airlines that could use slots efficiently, potentially leading to an inefficient mix of aircraft at busy European hubs. A uniform charge per movement would be more efficient, but few airports have adopted this approach, except for London Heathrow and Gatwick since the 1970s. There are a few examples of park pricing, such as at London City Airport and Rome Airport.

Recommended readings

Forsyth, P., Guiomard, C., & Niemeier, H.-M. (2023). Airport economics. In *Airport Economics* (Chapter 4). Abingdon: Routledge.

Forsyth, P., Müller, J., Niemeier, H.-M., & Guiomard, C. (2021). Changing airport governance and regulation: The regional aspect. In A. Graham, N. Adler, H.-M. Niemeier, O. Betancor, A. Antunes, V. Bilotkach, E. Calderón, & G. Martini (Eds.), *Air transport and regional development policies* (pp. 49-80). Abingdon: Routledge.

Dr **Brian Pearce** is an Honorary Professor at University College London (UCL) and Executive Director of the Air Transportation Systems Research Laboratory at the UCL (https://www.atslab.org/). He is also a Visiting Professor at Cranfield University, at the Centre for Air Transport Management, a Fellow of the Royal Aeronautical Society and President of the EAC Institute. For almost 20 years, he was Chief Economist at the International Air Transport Association (IATA), where he also was a member of the senior leadership team based in Geneva. Earlier appointments include Director of the Centre for Sustainable Investment at Forum for the Future, Chief Economist of the EY Item Club and Head of Global Economics at UBS Warburg in London and Tokyo.

About the session: *Airline Profitability*

The airline industry has persistently generated economic losses and destroyed investor value; the return on invested capital at the industry level has always been below the weighted average cost of capital. Airlines have also had weak, highly geared, i.e., net debt typically five times or more than EBITDA, i.e., earnings before deducting depreciation and interest, and far from the 3x or below required to get an investment-grade rating from the credit rating agencies. This session aims to describe the airline profitability situation and the capital destruction puzzle, looking at those few airlines that have made economic profits, at why the standard economic structure-conduct-performance approach has little to say about why some firms succeed, others fail, at the resource-based approach looking at the distinctive capabilities of firms which does help, and suggesting some explanations about why a few airlines succeed, why most fail, and why investor behaviour does not seem to follow the economic log.

Recommended readings

Pearce, B. D., & Porter, M. (2011). *Vision 2050: Structuring for Profitability* (Chapter 1). IATA Geneva. Retrieved from https://www.hbs.edu/faculty/Pages/item.aspx?num=46944

Richter, A., et al. (2022). *The Six Secrets of Profitable Airlines*. McKinsey. Retrieved from https://www.mckinsey.com/industries/travel-logistics-and-infrastructure/our-insights/the-six-secrets-of-profitable-airlines

Pearce, B. D. (2013). *Profitability and the Air Transport Value Chain*. IATA Geneva. Retrieved from https://www.iata.org/en/iata-repository/publications/economic-reports/profitability-and-the-air-transport-value-chain/

Dr. **Ane Elixabete Ripoll-Zarraga** is a Senior Lecturer in Operations Management and Auditing at Universitat Autònoma de Barcelona (UAB) and previously taught at the London School of Economics (LSE). Currently, she is conducting research at the University of Surrey (Centre for Business Analytics in Practice), focusing on analysing inefficiencies in US airlines using artificial intelligence (AI). Ane E. holds a PhD in Entrepreneurship and Management from UAB and is recognised for her research impact, receiving the Extraordinary Doctorate Award. She is a Fellow of Advance Higher Education in the UK (FHEA). Ane E. has extensive experience as an external auditor for groups

(consolidation) and consultant for SMEs, and she serves as a board member of the German Aviation Research Society (GARS) and chaired the European Aviation Conference Research Day in Luxembourg in 2023. Her research interests include operations management, benchmarking analysis, and efficiency modelling. Ane E. is a respected reviewer for prestigious journals and emphasises the importance of critically assessing public data for international benchmarking and harmonisation in comparing regulatory frameworks and accounting policies.

About the session: *Critical Assessment of Published Data*
Published data is often used for research because of accessibility, without questioning or assessing if these are the best representation of the industry. Can we freely compare data from companies reporting in different countries with diverse regulatory national frameworks? Assuming that frameworks are similar, which accounting policies companies report on? In this session, we will review accounting concepts and conventions to understand potential errors behind data published, such as financial data, and their impact on biasing the results and findings.

Recommended readings

International Accounting Standards (IAS). (n.d.). Retrieved from https://www.iasplus.com/en/standards/ias

- IAS 16 Property, Plant and Equipment. (n.d.). Retrieved from https://www.iasplus.com/en/standards/ias/ias16
- IAS 36 Impairment. (n.d.). Retrieved from https://www.iasplus.com/en/standards/ias/ias36
- IAS 37 Provision, Contingent Liabilities and Contingent Assets. (n.d.). Retrieved from https://www.ifrs.org/issued-standards/list-of-standards/ias-37-provisions-contingent-liabilities-and-contingent-assets/
- IAS 8 Accounting Policies, Changes in Accounting Estimates and Errors. (n.d.). Retrieved from https://www.iasplus.com/en/standards/ias/ias8

International Financial Reporting Standards (IFRS). (n.d.). Retrieved from https://www.ifrs.org/issued-standards/list-of-standards/

Dr **David Starkie** is a Senior Associate at Case and Associates, London, and a former Professor in Economics with over 20 years of experience as a director of economic consultancies in the US and UK. David has extensive experience in airport regulation in the UK, Australia, New Zealand, and South Africa. He advised parliamentary committees and government institutions in Australia and Argentina and was the long-term economic advisor preceding two meetings of the Civil Aviation Environmental Protection (CAEP) organisation. In addition to academic roles at the Institute for Fiscal Studies in London, David was a Visiting Professor at the University of Applied Sciences of Bremen (Germany) and a Professorial Research Fellow at the Economics department of the University of Adelaide (Australia) for five years. He has also contributed to government committees and advised select committees of the House of Commons on various aviation-related inquiries from 1972 to 1997.

About the session: *Airport Production Functions: an Overview*
Following a brief overview of both theory and received wisdom (conventional view) of the airport production function, the session will focus on empirical evidence. The latter suggests that in most Western economies, capacity is expanded by adapting existing airports, not building entirely new airports, and with different ways to add capacity. However, a downside of expansion is the possibility that the (structural) quality of service provided deteriorates so that passengers are faced with a negative externality, which is usually ignored in airports' analysis expansion (and of the production function).

Recommended readings

Starkie, D. (2023). Chapter 5. In D. Starkie (Ed.), *Airport Enterprises: An Economic Analysis*. Amazon Books. (Available in both flexi and e-book editions).

Dr **Víctor Valdés**, a Mexican economist, holds a bachelor's degree in economics from the Center of Research and Teaching in Economics (Mexico), a Master of Arts in economics from Cornell University, and a PhD in strategic management from Anahuac University. He currently teaches industrial organisation and entrepreneurship at Anahuac University in Mexico City. His research focuses on various topics related to middle-income countries, including economic regulation of airlines and airports, aeronautical charges, air travel demand, entrepreneurship education, startup survival, and business cases for teaching purposes. Víctor organised the Air Travel Conference in 2010, 2012, and 2015, bringing together international academics, practitioners, and government officials to discuss issues related to the development of the aeronautical industry in Mexico. Additionally, he has provided consulting services for organisations such as the Economic Commission for Latin America and the Caribbean of the United Nations, the United States Agency for International Development, the Mexican Competition Commission, the Ministry of Transportation of Mexico, and several public and private airports in Mexico.

About the session: *Slot allocation at Mexico City International Airport*

Mexico City International Airport has been a congested slot-controlled airport for more than two decades. This session covers the evolution of this phenomenon: from the declaration of congested conditions, remedies from the Mexican Competition Commission and the Ministry of Transportation and the launch of a second airport to alleviate congestion. In this session, the interplay of institutional, technical, and political issues will be discussed to understand government decision-making and potential implications.

Recommended readings

Valdes, V., & Gillen, D. (2018). The consumer welfare effects of slot concentration and reallocation: A study of Mexico City International Airport. *Transportation Research Part A: Policy and Practice*, 114, 256-269.