



THE HONG KONG
POLYTECHNIC UNIVERSITY
香港理工大學



Department of
Aeronautical and Aviation Engineering
航空及民航工程學系



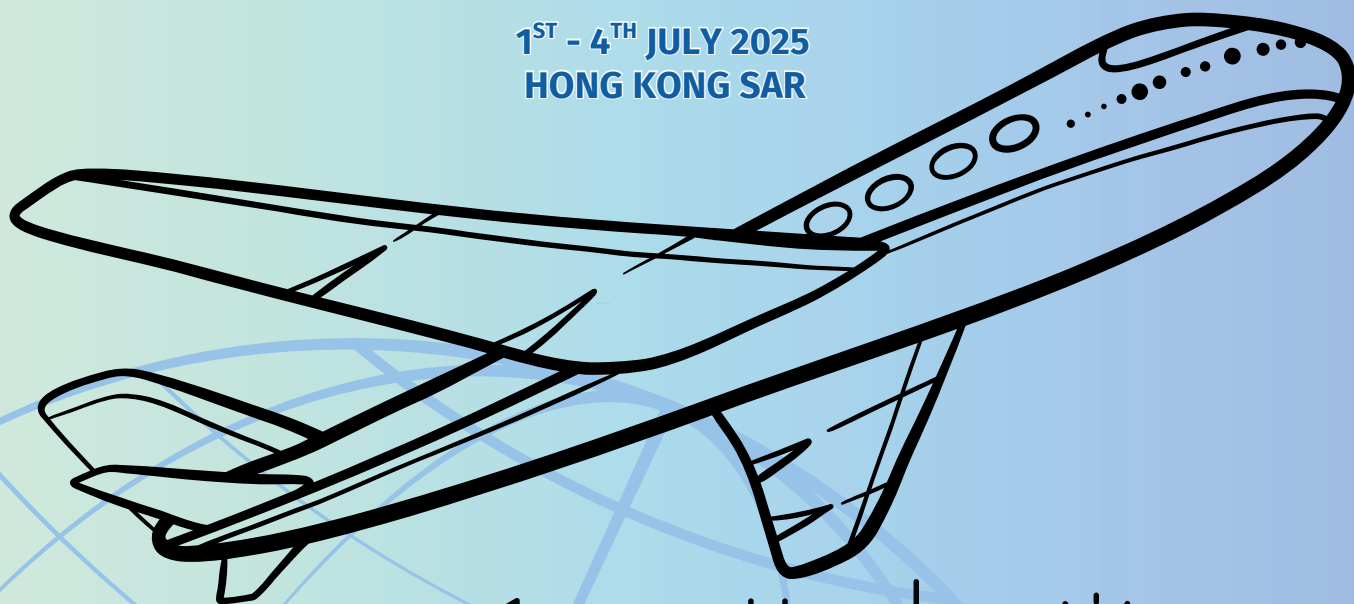
AIR TRANSPORT RESEARCH SOCIETY

THE 28TH AIR TRANSPORT RESEARCH SOCIETY WORLD CONFERENCE

TOWARDS A GREENER, SUSTAINABLE AND RESILIENT AVIATION

PROGRAMME BOOK

1ST - 4TH JULY 2025
HONG KONG SAR



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WELCOME ADDRESS

Prof. Martin DRENSER

Chair, ATRS, University of Maryland



Welcome to the 28th ATRS World Conference, hosted by The Hong Kong Polytechnic University. As some of you may know, this is the second time we are conducting our World Conference in Hong Kong. The first time was in 1999 when the conference chair was current ATRS President, Prof. Anming Zhang, then a faculty member at City University of Hong Kong. The 1999 conference was quite memorable. Hong Kong had just retired Kai Tak Airport and opened its new airport at Chek Lap Kok, so conference participants had the chance to experience this fabulous new facility.

We have waited too long - 26 years - to return to Hong Kong. I would like to thank the Dean of the Faculty of Engineering, Prof. H.C. Man, the Head of the Department of Aeronautical and Aviation Engineering, Prof. Chih-yung Wen, the Chair of the Local Organising Committee, Dr. Wei Liu, and all the other members of the organising team for inviting us to Hong Kong. The theme of this conference is Towards a greener, sustainable and resilient aviation. I am hopeful that, collectively, we can make progress towards this goal.

Prof. Anming ZHANG

President, ATRS, University of British Columbia



Dear colleagues and friends,

I hope you are doing well! As we had completed successfully our 27th ATRS World Conference in Lisbon, Portugal, we look forward to meeting you at the 28th ATRS World Conference June 30-July 4, 2025, Hong Kong. This will be the second ATRS World Conference held in Hong Kong (our 3rd annual conference was held in Hong Kong, 1999). Our Hong Kong colleagues have already started preparation work for the 2025 edition.

I would like to thank the Hong Kong conference organisers for their excellent preparation so far. We all hope that you attend the 2025 conference where we can exchange research results and ideas, and renew old acquaintances and meet new friends.

WELCOME ADDRESS

Prof. Wouter DEWULF

Vice President (External), ATRS, University of Antwerp



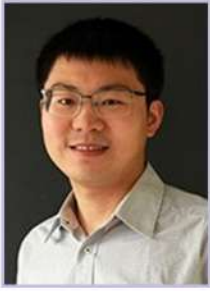
Welcome to the 28th Air Transport Research World Conference of ATRS, proudly hosted by The Hong Kong Polytechnic University! We are excited to gather in the vibrant city of Hong Kong, a global aviation hub renowned for its strategic location and world-class infrastructure.

Positioned at the heart of Asia, Hong Kong is a key gateway to the rapidly growing markets of the region, making it the ideal setting for this year's conference. With its blend of rich culture, modern innovations, and an ever-expanding role in global air transport, Hong Kong offers participants an exceptional forum for insightful discussions and networking opportunities.

Whether you're here to present your research, explore new developments, share research, or forge connections, this dynamic city will inspire and energize your experience.

I look forward to welcoming all participants to this unique event and together, exploring the future of aviation in one of the most exciting and fast-growing regions in the world.

MESSAGE FROM THE ORGANISING CHAIRS



Prof. Wei LIU

Chair,
Local Organising
Committee



Prof. Kam Hung NG

Vice Chair,
Local Organising
Committee



Prof. Gangyan XU

Vice Chair,
Local Organising
Committee



Prof. Lingxiao WU

Vice Chair,
Local Organising
Committee

On behalf of the Local Organising Committee, it is with great pleasure that we host the 28th World Conference of the Air Transport Research Society and welcome you to the vibrant city of Hong Kong and The Hong Kong Polytechnic University. We are thrilled to have you on board for this significant event, and are eagerly looking forward to the innovative ideas and strategic contributions you will bring.

As an international aviation hub home to a world-class airport and leading airlines, aviation services, and MROs, Hong Kong provides a dynamic backdrop for our gathering. This conference serves as a vital platform for researchers, practitioners, and enthusiasts from around the globe to exchange knowledge, insights, and innovative ideas. As the industry continues to soar to new heights, particularly with the rapid development of the low-altitude economy, it is essential that we come together to address rising demands, intense competition, and new safety concerns.

Our programme is rich with keynote speeches, diverse sessions, and interactive workshops, all dedicated to fostering dialogue, sharing cutting-edge research, and exploring solutions to the challenges currently facing air transportation. We are confident that this conference will not only advance the field of air transport studies but also foster collaborations and inspire new solutions for the future development of the aviation industry.

Once again, a very warm welcome to the 28th ATRS World Conference. We hope you have a memorable experience filled with enlightening sessions and productive interactions. Beyond the formal agenda, we encourage you to enjoy the unique culture, cuisine, and hospitality that Hong Kong, Asia's world city, has to offer. We thank you for your participation in making this event a resounding success.

CONFERENCE ORGANISING COMMITTEE

Chair	:	Prof. Wei Liu	Associate Professor and Associate Head, PolyU AAE
Vice Chairs	:	Prof. Kam K.H. Ng	Associate Professor and Associate Head, PolyU AAE
		Prof. Gangyan Xu	Assistant Professor, PolyU AAE
		Prof. Lingxiao Wu	Assistant Professor, PolyU AAE
Committee	:	Prof. Chih-yung Wen	Chair Professor and Head, PolyU AAE
		Prof. Xiaowen Fu	Professor and Head, PolyU ISE
		Prof. Nick Chung	Associate Professor and Associate Head, PolyU ISE
		Prof. Kun Wang	Assistant Professor, PolyU ISE
		Prof. Xin Wen	Assistant Professor, PolyU ISE
		Prof. Xiaoge Zhang	Assistant Professor, PolyU ISE
		Prof. Achim Czerny	Professor, PolyU LMS
		Prof. Sarah Wan	Associate Professor, PolyU LMS
		Prof. Fan Li	Assistant Professor, PolyU AAE
		Prof. Ang Li	Assistant Professor, PolyU AAE
		Prof. Siyuan Feng	Assistant Professor, PolyU AAE
		Dr. Qinbiao Li	Research Assistant Professor, PolyU AAE

WELCOME RECEPTION

18:30-22:00 1st July

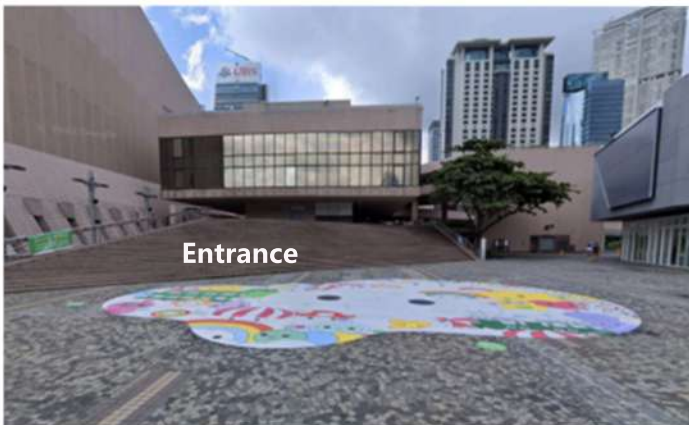
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GALA DINNER & AWARD PRESENTATIONS

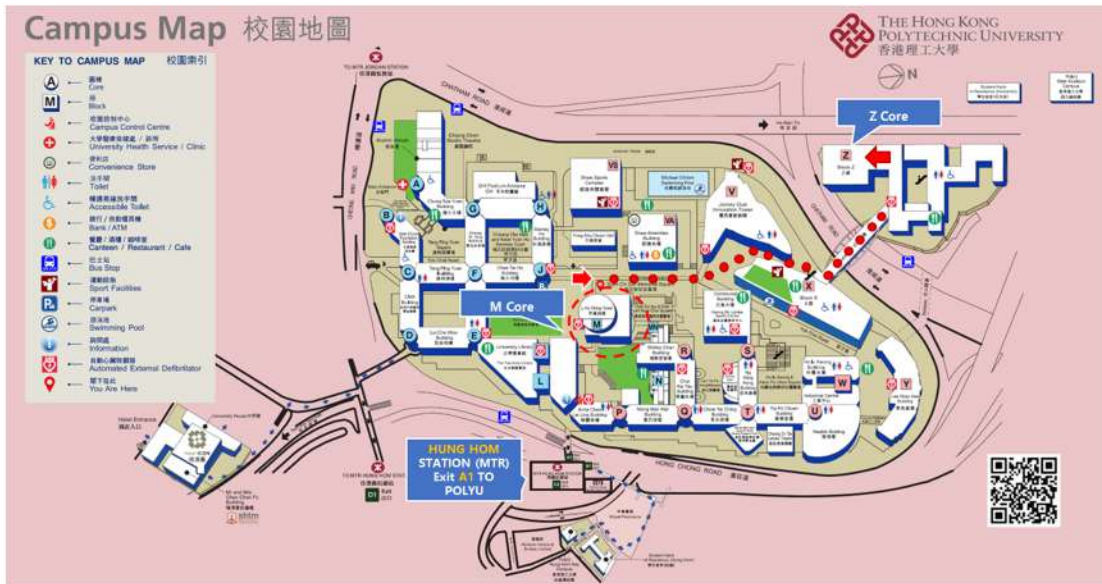
18:30-23:00 3rd July

Serenade Chinese Restaurant



ACCESS

FROM M CORE TO Z CORE



TO GALA DINNER

*Enjoy a beautiful start to your evening with a delightful stroll to the Gala Dinner! We invite you to depart from the **POLYU D core exit** and wander along the stunning Avenue of Stars.*



OFFICIAL CONFERENCE APP: WHOVA



Apple download QR code



Android download QR code

To enhance your experience at our conference, we will use an online platform called Whova for our event. We encourage all attendees to download the free Whova app to make the most of the event. With the Whova app, you can:

- View the event agenda and plan your personal schedule.
- Participate in live polls and Q&A sessions, access presentation slides, and share your thoughts and feedback directly within the app.
- Receive instant notifications from the organisers about any important announcements or last-minute changes to the schedule.
- Browse the profiles of fellow attendees and speakers before you even arrive. You can send in-app messages to connect with colleagues, exchange digital business cards, and arrange informal meet-ups.
- Use the Community Board to start discussions, share photos, coordinate ride-shares, or post questions for the organisers and the wider conference community.

You can download the Whova app by scanning the QR code or using the following link: <https://whova.com/download/>

After downloading the Whova app, please use the same email address you used to register for the conference. You will be prompted to create a password. Once you have signed in, you should be taken directly to our conference page.

If you encounter any problems while using this application, you can use the following links to refer to the official documentation to solve your problems: <https://whova.com/pages/whova-app-user-guide/>

GUIDE TO COMPLIMENTARY WI-FI

To ensure all our conference attendees have seamless internet access, we are pleased to offer complimentary Wi-Fi service throughout the PolyU campus. Please follow the instructions below to connect your devices.

How to Connect

You can connect by selecting the network from the list of available Wi-Fi networks on your device.

- Network Name (SSID): **Wi-Fi.HK via PolyU**
- Eligible Users: All conference attendees and delegates.
- Password: No login ID or password is required.

If You Cannot Find the Network (Manual Setup)

In some cases, the network may not appear automatically in your list. If you cannot see Wi-Fi.HK via PolyU, please follow these steps to add it manually:

1. Navigate to the Wi-Fi settings on your smartphone, tablet, or laptop.
2. Select the option to “Add Network” or “Join Other Network”. (This may be found under a “More” or “+” menu).
3. When prompted, enter the following details precisely:
 - o Network Name / SSID: Wi-Fi.HK via PolyU
 - o Security Type: Select None or Open.
4. Save the settings and connect to the network.

Important Information

This complimentary service provides **two hours** of free Wi-Fi access per session. After this period, your device will be disconnected. To continue using the internet, you will simply need to **reconnect** to the network to start a new two-hour session.

MAIN CONFERENCE SESSION CHAIR GUIDE

Thank you for chairing the paper session(s)! The Conference Committee would like to draw your attention to a few details about the conference's organisational structure. This guide will outline your responsibilities as the session chair.

START THE SESSION

Collect presentation slides before the start of the session. Once the session is ready to begin, you will open the session by:

- welcoming the attendees,
- introducing yourself,
- introducing the other speakers and the order which they will speak in.

Please be aware that some presenters may not show up (this happened in the past conferences). If this is the case in your session, it will be essential to maintain the schedule.

FACILITATE THE SESSION

Each parallel session will consist of three, four or five presentations and last one and a half hours.

- If you are chairing a session containing three presentations, you should limit each presentation to no more than 20 minutes and allow 5 minutes for Q&A after each presentation;
- If you are chairing a session containing four presentations, you should limit each presentation to no more than 15 minutes and allow 5 minutes for Q&A after each presentation;
- If you are chairing a session containing five presentations, you should limit each presentation to no more than 12 minutes and allow 5 minutes for Q&A after each presentation.

To keep the session in sequence, we recommend you notify the speaker when there are 3 minutes and 1 minute left respectively. In addition, you may stop the speaker once the time is up.

AFTER THE SESSION

Email the collected presentation slides to the ATRS administrator (atrsmailbox@gmail.com) and report any no-show case in the email.

Thank you for working with us, and we hope you have a great session! We look forward to seeing you soon at the conference.

Best Regards,

Anming Zhang, ATRS President

Sarah Wan, VP of Programs

Wei Liu, ATRS Hong Kong Conference Chairman

HIGHLIGHTS

MONDAY, 30th JUNE (PRE-CONFERENCE)

11:00 – 11:45 Online Plenary Session Theme: Air cargo in a multi-polar world	p. 15
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WEDNESDAY, 2nd JULY

09:15 – 10:30 Industry Keynote Speeches	p. 22
16:00 – 17:30 KAPSARC Special Session Theme: Regional policies, infrastructure challenges, and investment frameworks unique to the Middle East	p. 30
17:30 – 18:30 Authors Meet the Editors	p. 33
Special Event 10:00 – 15:00 Sustainable Aviation Fuel Forum (Hong Kong) Separate location, registration required	p. 49

THURSDAY, 3rd JULY

09:00 – 10:00 Academic Keynote Speech	p. 34
11:15 – 12:45 Unison Industry Session (Paper session M4-1) Theme: Air cargo operations, demand modelling & system planning	p. 34
14:00 – 15:30 Unison Industry Session (Paper session M5-1) Theme: Aviation forecasting practice	p. 38
16:00 – 17:30 Unison Industry Session (Paper session M6-1) Theme: Air travel demand dynamics & analysis	p. 41

FRIDAY, 4th JULY

09:00 – 10:30 PolyU/AAE Special Session (Paper session M7-1) Theme: Aviation engineering topics	p. 45
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PROGRAMME OF PRE-CONFERENCE (ONLINE)

This printed programme is subject to changes. Please refer to the Whova App or posts at the conference venue for the latest updates (if any).

OVERVIEW

All times in HKT (UTC+8)

MONDAY, 30th JUNE

08:45 – 09:00 Online Welcome Address

09:00 – 10:30 Online Paper Session I

P1-1 Air Transport Policy & Regulation

P1-2 Airline Strategy & Management

P1-3 Airport Economics & UAM

P1-4 Aviation & Economic Development

10:30 – 11:00 Break

11:00 – 11:45 Online Plenary Session

11:45 – 14:00 Break

14:00 – 15:30 Online Paper Session II

P2-1 Airline Operations & Management 1

P2-2 Airport Operations & Management 1

P2-3 Aviation & Sustainable Development

P2-4 Routing & Planning in Aviation

15:30 – 16:00 Break

16:00 – 17:30 Online Paper Session III

P3-1 Airline Operations & Management 2

P3-2 Airport Operations & Management 2

P3-3 Decarbonisation in Aviation

P3-4 UAM & Sustainability

TUESDAY, 1st JULY

13:30 – 17:30 Ph.D. Student and Junior Faculty Workshop

DETAILS

All times in HKT (UTC+8)

MONDAY, 30th JUNE

08:45 – 09:00 Online Welcome Address

Anming Zhang | President of the ATRS

Wei Liu | Chairman of ATRS Hong Kong Conference

09:00 – 10:30 Online Paper Session I

09:00 – 10:30 P1-1 Air Transport Policy & Regulation

Chair: **Tyler Spence** | Oklahoma State University

- 243 Data governance to optimize airport safety: A case study on inspections of non-certified airports
(Carolina Anselmo, Aeronautics Institute of Technology; Marcelo Guterres, Aeronautics Institute of Technology; Evandro Silva, Aeronautics Institute of Technology; Johnny Marques, Aeronautics Institute of Technology; Gildarcio Goncalves, Aeronautics Institute of Technology; Guilherme Tolentino, Aeronautics Institute of Technology; Anderson Correia, Aeronautics Institute of Technology)
- 347 A multi-stakeholder approach to Canadian aviation policy scenarios
(Emma Neale, Carleton University)
- 264 Expanding freedom of flight through open skies opportunities
(Azra Tanveer, Oklahoma State University; Tyler Spence, Oklahoma State University)
- 395 Technical system failure and airlines – A case-study of 2024 hasty CrowdStrike product rollout
(Neha Reddy Guntaka, Embry-Riddle Aeronautical University; Jayendra Gokhale, Embry-Riddle Aeronautical University)
- 245 Evaluating dynamics of air transport network connectivity across the African continent through US open skies influence
(Tyler Spence, Oklahoma State University; Youngran Choi, Embry-Riddle Aeronautical University)

09:00 – 10:30 P1-2 Airline Strategy & Management

Chair: **Seock-Jin Hong** | University of North Texas

- 49 The role of ESG in shaping financial outcomes: Evidence from US full-service and low-cost carriers
(Junwook Chi, University of Hawaii, Manoa)
- 45 The use of artificial intelligence (AI) in the flight deck: Enhancing human-AI teamwork in aviation
(Elizabeth Merwin, Embry-Riddle Aeronautical University; Jenna Korentsides, Embry-Riddle Aeronautical University; Lila Berger, Rice University; Lana Laskey, Embry-Riddle Aeronautical University; Scott Winter, Embry-Riddle Aeronautical University; Briana Sobel, Embry-Riddle Aeronautical University; Joseph Keebler, Embry-Riddle Aeronautical University)
- 244 Firm ambidexterity and market performance in global aviation: The moderating role of resource reconfiguration ability and sustainability orientation

- (Abhilash Vimal, The University of Texas at Arlington; Seock-Jin Hong, University of North Texas; Edmund Prater, The University of Texas at Arlington)
- 134 Rethinking pilot retention in the U.S.: An analysis of key factors
(Michael J. Hickey, University of North Dakota; Marina Efthymiou, Dublin City University; Robert O. Walton, Embry-Riddle Aeronautical University; James Higgins, University of North Dakota; Aman Gupta, Embry-Riddle Aeronautical University)
- 241 How do airlines thrive? New evidence on airline operational and shareholder efficiencies: A comparative analysis of major US airlines & its implications
(Seock-Jin Hong, University of North Texas; Abhilash Vimal, The University of Texas At Arlington; Edmund Prater, The University of Texas at Arlington)

09:00 – 10:30 P1-3 Airport Economics & UAM

Chair: **Sen Wang** | The Ohio State University

- 85 Optimizing vertiport locations for urban air mobility airport shuttles: Leveraging mobile location data in the midwest region of the U
(Qilei Zhang, Central Queensland University; Sen Wang, The Ohio State University)
- 394 Modeling early-stage advanced air mobility with integrated air-ground services for commuting
(Danesh Hosseinpanahi, University of Illinois Chicago; Heeseung Shon, University of Illinois Chicago; Bo Zou, University of Illinois Chicago)
- 286 Exploring airport attractiveness: Variables impacting passenger choices
(Barbara Alves, Aeronautics Institute of Technology; Giovanna Ronzani, Aeronautics Institute of Technology; Evandro José Da Silva, Aeronautics Institute of Technology; Ivaciane De Quadra, Aeronautics Institute of Technology)
- 361 Spatial dynamics of non-aeronautical revenue competition among U.S. airports
(Sen Wang, The Ohio State University; Fecri Karanki, Purdue University; Yi Gao, Purdue University)

09:00 – 10:30 P1-4 Aviation & Economic Development

Chair: **Youngran Choi** | Embry-Riddle Aeronautical University

- 68 Developing the global south air transport belt: Enhancing connectivity, cultural exchange, and economic growth
(Bruno Garcia Franciscone, Federal University of Rio de Janeiro (UFRJ); Elton Fernandes, Federal University of Rio de Janeiro (UFRJ); Xialong Zou, Jilin University)
- 239 Wheels up, deals down: How air connectivity reduces information frictions in trade
(Maozhu Liao, The University of British Columbia; Ce Bian, The University of British Columbia)
- 302 Research on transition of Japan's domestic airline network structure applying network analysis
(Taiki Mukoyama, Tokyo Denki University; Kazuyuki Takada, Tokyo Denki University)
- 392 The impact of revenue composition and market dynamics on abnormal returns in the aerospace and defense industry
(Hari Adhikari, Embry-Riddle Aeronautical University; Jayendra Gokhale, Embry-Riddle Aeronautical University; Hansen Majaya, Embry-Riddle Aeronautical University)
- 397 Decoding aircraft lease rate structures: A multi-method approach using PCA, Classification Regression, and Wavelets

(Youngran Choi, Embry-Riddle Aeronautical University; Hari Adhikari, Embry-Riddle Aeronautical University)

10:30 – 11:00 Break

11:00 – 11:45 Online Plenary Session

Topic: Air cargo in a multi-polar world
Moderator: **Achim Czerny** | The Hong Kong Polytechnic University
Presenter: **Li ZOU** | Embry-Riddle Aeronautical University
Discussants: **Anne Lange** | Frankfurt University of Applied Sciences
Cliff Sullivan | Senior Vice President - A-Sonic Logistics

11:45 – 14:00 Break

14:00 – 15:30 Online Paper Session II

14:00 – 15:30 P2-1 Airline Operations & Management 1

Chair: **Qinbiao Li** | The Hong Kong Polytechnic University

- 388 Establishing strike balance in the aviation industry: International approaches and applications in Turkey
(Sevdiye Kemik, Istanbul Topkapi University; Didem Rodoplu Şahin, Kocaeli University; Fatih İrtem, Kocaeli University / HEAŞ)
- 387 Co-opetition in aviation: The balance between competition and collaboration
(Şebnem Tamer, Istanbul Rumeli University; Didem Rodoplu Şahin, Kocaeli University)
- 121 Identifying persistent departure delay in Japanese aviation network using topological data analysis
(Soumik Nafis Sadeek, Institute of Science Tokyo; Shinya Hanaoka, Institute of Science Tokyo; Kashin Sugishita, Institute of Science Tokyo)
- 318 Key factors causing exit from Origin-Destination market: A machine learning approach
(Rika Arasawa, Tokyo Denki University; KAZUYUKI TAKADA, Tokyo Denki University)
- 172 An empirical analysis of structural changes and consumer surplus in the Korean international air passenger market
(Hae Young Shin, Korea Transport Institute; Seunghan Baek, Korea Transport Institute)

14:00 – 15:30 P2-2 Airport Operations & Management 1

Chair: **Enoch Lee** | The Hong Kong Polytechnic University

- 65 Competition between local airports in Japan: A case study of privatized versus public airports
(Hidenobu Matsumoto, Kwansei Gakuin University; Koji Domae, Osaka Sangyo University)
- 81 Congestion pricing and capacity for partially privatized airports
(Ming Hsin Lin, Osaka University of Economics)
- 290 Assessing bird strike risks and hazard zones near airports using citizen science and GIS
(Shafiqur Rahman, Indian Institute of Technology Kharagpur; DEBAPRATIM PANDIT, Indian Institute of Technology Kharagpur)

- 25 Does the airport ownership model impact the level of Digital Transformation (DT) of an airport?
(Sugandhi Jayaraman, University of Westminster; Anne Graham, University of Westminster)
- 323 Competitive airport operations in a multi-airport region through upstream check-in counters
(Enoch Lee, The Hong Kong Polytechnic University; Yue Huai, The Hong Kong University of Science and Technology; Hong K. Lo, The Hong Kong University of Science and Technology; Anming Zhang, University of British Columbia)

14:00 – 15:30 P2-3 Aviation & Sustainable Development

Chair: **Doreen La** | CQ University

- 326 Assessing the air quality impacts from aircraft taxiing delays
(Manori Dissanayaka, Griffith University; Tim Ryley, Griffith University; Bojana Spasojevic, Griffith University; Savindi Caldera, University of the Sunshine Coast)
- 378 Green aviation practices in Singapore and Malaysia: A two-country policy exploratory analysis
(Hansha Devi Kistamah, Kobe University)
- 17 Stakeholder perspectives on the challenges to successful implementation and continuation of India's regional connectivity scheme- UDAN
(Ajai Jayathilakan, Massey University)
- 23 The impact of digital technology on sustainable air travel behavior among elderly passengers
(Doreen La, CQ University; Iryna Heiets, RMIT University)

14:00 – 15:30 P2-4 Routing & Planning in Aviation

Chair: **Mohammad Rahiminia** | The University of Sydney Business School

- 344 Study on location-routing problem of drone urban delivery based on bi-level programming model
(Suyin Cui, Nanjing University of Aeronautics and Astronautics; Jiangao Zhang, Nanjing University of Aeronautics and Astronautics)
- 186 Dynamic path planning of medical transportation UAVs considering meteorological factors
(Qiuchen Song, Nanjing University of Aeronautics and Astronautics; Jiangao Zhang, Nanjing University of Aeronautics and Astronautics)
- 195 A stand assignment model considering the application of multi-aircraft ramp stands
(Baorong Xu, Beihang University; Yunqi Gao, Beihang University; Xin Wang, Beihang University)
- 123 A novel optimisation model for origin-destination demand estimation in aviation
(Mohammad Rahiminia, The University of Sydney; Michiel Bliemer, The University of Sydney; Rico Merkert, The University of Sydney)

15:30 – 16:00 Break

16:00 – 17:30 Online Paper Session III

16:00 – 17:30 P3-1 Airline Operations & Management 2

Chair: **Renato Redondi** | University of Bergamo

- 58 Airline ESG ratings and market financial performance: A spatial approach

- (Nadine Itani, University of Surrey; Bora Kim, University of Surrey; Liu Anyu, The Hong Kong Polytechnic University; John F. O'Connell, University of Surrey)
- 162 How game-based learning aids holistic airline decision-making
(Paul Clark, City St George's University)
- 145 Expectation-disapproval theory in the airline industry: A study on passenger expectations, emotional disapproval and intention to recommend
(Nuriye Gunebakan, Iskenderun Technical University; Seda Arslan, Iskenderun Technical University; Canan Yilmaz Uz, Iskenderun Technical University; Nuriye Gunebakan, Iskenderun Technical University)
- 299 Economic impact of SAF on airline business sustainability: Comparative analysis between LCCs and FSCs in the current landscape and the future trends
(Luis Gabriel, ISEC Lisboa; Maria Baltazar, ISEC Lisboa)
- 212 The changing role of hubs: De-hubbing trends and post-COVID permanent effects
(Renato Redondi, University of Bergamo; Paolo Malighetti, University of Bergamo; Stefano Paleari, University of Bergamo)

16:00 – 17:30 P3-2 Airport Operations & Management 2

Chair: **Chiara Morlotti** | University of Bergamo

- 401 An assessment of context factors influencing airport response and resilience in pre and post COVID-19: Evidence from Europe
(Yuting Chen, University of Bari; Angela S. Bergantino, University of Bari; Mario Intini, University of Bari)
- 297 Beyond the clock: Understanding overestimation and outliers in airplane emergency evacuation time estimation
(Chenchen Xu, Ghent University; Kurt Fuellhart, Ghent University; Frank Witlox, Ghent University)
- 411 Exploring the effect of consumer search index on airport demand: Evidence from capital city of Türkiye implementing ARDL and VAR-VECM Granger Causality techniques with structural breaks
(Bahri Baran Koçak, Dicle University; Cem Burak Koçak, Ministry of National Education; Ömer Osman Dursun, Fırat University; Mustafa Ergun, Giresun University; Suat Toraman, Fırat University)
- 126 Depiction of corporate ethical footprint for airports: Concept and analysis framework
(Maria Sartzetaki, Democritus University of Thrace; Dimitrios Dimitriou, Democritus University of Thrace; Aristi Karagkouni, Democritus University of Thrace)
- 155 Seamless travel at airports: Estimating passengers' propensity to use and pay for biometric services
(Chiara Morlotti, University of Bergamo; Nicolò Avogadro, University of Bergamo; Renato Redondi, University of Bergamo)

16:00 – 17:30 P3-3 Decarbonisation in Aviation

Chair: **Nico Fluethmann** | German Aerospace Center (DLR)

- 95 Strategic analysis for decarbonization of the Turkish air cargo sector
(Cavidan Tugce Keles, Erzincan Binali Yıldırım University; Gökhan Tanriverdi, Erzincan Binali Yıldırım University)
- 247 Consideration of infrastructure in the assessment of carbon emissions in the aviation sector
(Juliane Roesing, RWTH Aachen University)

- 28 Fueling the future: Decoding key factors influencing the adoption of biofuel and claim for the uptake of SAF in the business aviation sector
(Michael Franco, University of St. Gallen; Andreas Wittmer, University of St. Gallen)
- 129 Emission reduction potential of hydrogen-powered aviation between airports in proximity of seaports and inland ports
(Nico Fluethmann, German Aerospace Center (DLR); Tim Schunkert, German Aerospace Center (DLR))
- 402 A multi-level perspective on sustainable aviation fuel transition in Europe: Policy, production, and pathways to carbon-neutral aviation by 2050
(Mark Breen, Dublin City University; Marina Efthymiou, Dublin City University; James Carton, Dublin City University)

16:00 – 17:30 P3-4 UAM & Sustainability

Chair: **Marius Magnus Kroemer** | University of Mannheim

- 399 Sustainable aviation: Insights from industry experts on its characteristics, risks and benefits.
(Pedro Corte Real, Business Research Unit ISCTE; Kalakou Sofia, Business Research Unit ISCTE)
- 206 Simulation-based assessment of vertiport airside capacity using experimental design
(Eva Wille, RWTH Aachen University)
- 231 Techno-economic analysis of urban air mobility: Pathways to sustainable urban transport
(Yiyang Luo, Ghent University; Kurt Fuellhart, Ghent University; Giovanni Circella, Ghent University; Frank Witlox, Ghent University)
- 127 AHP Modelling Framework for assessing tourist airports sustainability performance
(Dimitrios Dimitriou, Democritus University of Thrace; Aristi Karagkouni, Democritus University of Thrace)
- 168 Sustainable airline planning and scheduling
(Marius Magnus Kroemer, University of Mannheim; David Topchishvili, University of Mannheim; Cornelia Schoen, University of Mannheim)

TUESDAY, 1st JULY

13:30 – 17:30 Ph.D. Student and Junior Faculty Workshop

- 13:30 – 14:20 **Federico Ciliberto** | University of Virginia
Market structure and competition in airline markets
- 14:20 – 15:10 **Miao Song** | The Hong Kong Polytechnic University
Branch-and-price in air transport: Algorithm fundamentals and applications
- 15:10 – 15:30 Break
- 15:30 – 16:20 **Anne Lange** | Frankfurt University of Applied Sciences
Operational challenges in air cargo
- 16:20 – 17:10 **Achim Czerny** | The Hong Kong Polytechnic University
Inframarginal vs marginal passengers in aviation markets
- 17:10 – 17:30 Break

PROGRAMME OF MAIN CONFERENCE

This printed programme is subject to changes. Please refer to the Whova App or posts at the conference venue for the latest updates (if any).

OVERVIEW

TUESDAY, 1st JULY – Meetings and Reception

09:00 – 16:00 Meetings (By invitation only)	R1206
13:00 – 20:30 Conference Registration	16/F, M Core
13:30 – 17:30 Ph.D. Student and Junior Faculty Workshop (Registration required)	Senate Room, 16/F, M Core
17:30 – 18:15 Meet the Experienced Scholars (MES) (Appointment required)	Senate Room, 16/F, M Core
18:30 – 22:00 Welcome Reception	16/F, M Core

WEDNESDAY, 2nd JULY – Industry Plenary Sessions and Paper Sessions

08:30 – 17:30 Conference Registration	2/F, Block Z
09:00 – 09:15 Welcome Address	Z209
09:15 – 10:30 Industry Keynote Speeches	Z209
10:30 – 11:00 Coffee Break	2/F, Block Z
11:00 – 12:30 Paper Session I	2/F & 4/F, Block Z
M1-1 Urban Aviation Mobility 1	Z204
M1-2 Sustainability in Air Transport 1	Z206
M1-3 Air Transport Policy & Regulation 1	Z212
M1-4 Aviation & Economic Development 1	Z405
M1-5 Airport Operations 1	Z406
M1-6 Airline Economics & Performance 1	Z407
M1-7 Marketing & Consumer Behaviour in Air Transport 1	Z409
M1-8 Air Traffic Control 1	Z410
M1-9 Air Cargo	Z413
12:30 – 14:00 Lunch	Communal Staff Restaurant, 4/F, Communal Building
14:00 – 15:30 Paper Session II	2/F & 4/F, Block Z
M2-1 Airline Economics & Performance 2	Z204
M2-2 Sustainability in Air Transport 2	Z206
M2-3 Marketing & Consumer Behaviour in Air Transport 2	Z212
M2-4 Air Transport Demand 1	Z405
M2-5 Airport Operations 2	Z406
M2-6 Airport Strategy & Management 1	Z407
M2-7 Urban Aviation Mobility 2	Z409
M2-8 Air Transport and COVID-19	Z410
M2-9 Aviation Safety & Security	Z413
15:30 – 16:00 Coffee Break	2/F, Block Z
16:00 – 17:30 KAPSARC Special Session (Open to all)	Z409
16:00 – 17:30 Paper Session III	2/F & 4/F, Block Z
M3-1 Airline Strategy & Management 1	Z204

M3-2	Sustainability in Air Transport 3	Z206
M3-3	Intermodal Operations & Modal Competition 1	Z212
M3-4	Airline Operations 1	Z405
M3-5	Airport Operations 3	Z406
M3-6	Airline Network Development 1	Z407
M3-7	Airport Economics & Performance 1	Z410
M3-8	Russia-Ukraine War & Aviation	Z413
17:30 – 18:30 Authors Meet the Editors (Open to all)		Z205
THURSDAY, 3rd JULY – Academic Plenary Session and Paper Sessions		
08:30 – 17:30 Conference Registration		2/F, Block Z
09:00 – 10:00 Academic Keynote Speech (live streaming on-site and via Whova)		Z209
10:00 – 10:45 Global Airport Benchmarking Report		Z209
10:45 – 11:15 Coffee Break		2/F, Block Z
11:15 – 12:45 Paper Session IV		2/F & 4/F, Block Z
M4-1	Unison Industry Session: Air Cargo Operations, Demand Modelling & System Planning	Z409
M4-2	Marketing & Consumer Behaviour in Air Transport 3	Z204
M4-3	Sustainability in Air Transport 4	Z206
M4-4	Urban Aviation Mobility 3	Z212
M4-5	Aviation & Economic Development 2	Z405
M4-6	Airport Operations 4	Z406
M4-7	Air Transport Policy & Regulation 2	Z407
M4-8	Airline Economics & Performance 3	Z410
M4-9	Air Traffic Control 2	Z413
12:45 – 14:00 Lunch		Communal Staff Restaurant, 4/F, Communal Building
14:00 – 15:30 Paper Session V		2/F & 4/F, Block Z
M5-1	Unison Industry Session: Aviation Forecasting Practice	Z409
M5-2	Marketing & Consumer Behaviour in Air Transport 4	Z204
M5-3	Sustainability in Air Transport 5	Z206
M5-4	Urban Aviation Mobility 4	Z212
M5-5	Airport Economics & Performance 2	Z405
M5-6	Airport Operations 5	Z406
M5-7	Airline Economics & Performance 4	Z407
M5-8	Air Transport Demand 2	Z410
M5-9	Technology Application in Aviation	Z413
15:30 – 16:00 Coffee Break		2/F, Block Z
16:00 – 17:30 Paper Session VI		2/F & 4/F, Block Z
M6-1	Unison Industry Session: Air Travel Demand Dynamics & Analysis	Z409
M6-2	Intermodal Operations & Modal Competition 2	Z204
M6-3	Sustainability in Air Transport 6	Z206
M6-4	Airline Network Development 2	Z212
M6-5	Airport Strategy & Management 2	Z405
M6-6	Airport Operations 6	Z406
M6-7	Airline Strategy & Management 2	Z407
M6-8	Airline Operations 2	Z410
18:30 – 23:00 Gala Dinner & Award Presentations		Serenade Chinese Restaurant
FRIDAY, 4th JULY – Paper Session and Conference Closing Session		
08:30 – 12:30 Conference Registration		2/F, Block Z
09:00 – 10:30 Paper Session VII		2/F & 4/F, Block Z

M7-1	PolyU/AAE Special Session: Aviation Engineering Topics	Z409
M7-2	Intermodal Operations & Modal Competition 3	Z204
M7-3	Sustainability in Air Transport 7	Z206
M7-4	Air Transport Policy & Regulation 3	Z212
M7-5	Airline & Airport Case Studies	Z405
M7-6	Airline strategy & management 3	Z406
M7-7	Airline Network Development 3	Z407
M7-8	Aviation Career and Equity	Z410
10:30 – 11:00 Coffee Break		2/F, Block Z
11:00 – 12:30 ATRS General Assembly & Closing Ceremony		Z209
13:30 or later Technical Tours (Registration required)		

DETAILS

TUESDAY, 1st JULY – Meetings and Reception

09:00 – 16:00 Meetings (By invitation only)

Venue: R1206

09:00 – 11:00 ATRS Executive Committee Meeting

11:00 – 13:00 ATRS Networking Committee Meeting

13:00 – 14:00 Lunch

14:00 – 15:00 Airport Benchmarking Taskforce Meeting

15:00 – 16:00 JATRS Editorial Board Meeting

13:00 – 20:30 Conference Registration

Venue: 16/F, M Core

13:30 – 17:30 Ph.D. Student and Junior Faculty Workshop (Registration required)

Venue: Senate Room, 16/F, M Core

13:30 – 14:20 **Federico Ciliberto** | University of Virginia

Market structure and competition in airline markets

(live streaming)

14:20 – 15:10 **Miao Song** | The Hong Kong Polytechnic University

Branch-and-price in air transport: Algorithm fundamentals and applications

15:10 – 15:30 Break

15:30 – 16:20 **Anne Lange** | Frankfurt University of Applied Sciences

Operational challenges in air cargo

16:20 – 17:10 **Achim Czerny** | The Hong Kong Polytechnic University

Inframarginal vs marginal passengers in aviation markets

17:10 – 17:30 Break

17:30 – 18:15 Meet the Experienced Scholars (MES) (Appointment required)

Venue: Senate Room, 16/F, M Core

18:30 – 22:00 Welcome Reception

Venue: 16/F, M Core

WEDNESDAY, 2nd JULY – Industry Plenary Sessions and Paper Sessions

08:30 – 17:30 Conference Registration

Venue: 2/F, Block Z

09:00 – 09:15 Welcome Address

Venue: Z209, Block Z

Anming Zhang | President of the ATRS

Wei Liu | Chairman of ATRS Hong Kong Conference

09:15 – 10:30 Industry Keynote Speeches

Venue: Z209, Block Z

Chair: **Wei Liu** | The Hong Kong Polytechnic University

Speakers: **Sai Tick Chan** | Assistant Director, Hong Kong Observatory (Aviation Weather Services)
From runway to en-route: Innovating aviation weather resilience in a tropical hub

Vincent Wong | Chief Electronics Engineer, Hong Kong Civil Aviation Department
Going green and innovative: Two-phase immersion cooling system for high-performance air traffic control systems

Steven Yiu Siu-Chung | Executive Director (Airport Operations), Hong Kong Airport Authority
Topic: TBC

10:30 – 11:00 Coffee Break

Venue: 2/F, Block Z

11:00 – 12:30 Paper Session I

Venue: 2/F & 4/F, Block Z

11:00 – 12:30 M1-1 Urban Aviation Mobility 1 Z204

Chair: **Yang Liu** | Institute of Science Tokyo

101 Real-time robust path planning for unmanned aerial vehicles and unmanned surface vehicles in maritime monitoring

(Qingying He, The Hong Kong Polytechnic University; Wei Liu, The Hong Kong Polytechnic University)

159 Routing cooperative trucks-and-drones in urban healthcare-emergency with pick-up-to-delivery and vehicle relocation

(Xintong Li, The Hong Kong Polytechnic University; Wei Liu, The Hong Kong Polytechnic University)

303 Urban logistics system design with truck-drone collaborative delivery

(Zhenwei Gong, The University of Hong Kong; Fangni Zhang, The University of Hong Kong; Zhuoye Zhang, The University of Hong Kong)

369 Optimization of intelligent emergency material dispatch and power allocation based on air-ground coordination

(Wenbin Jia, Beihang University; Xiaojing Chen, Beihang University; Qiong Tian, Beihang University)

11:00 – 12:30 M1-2 Sustainability in Air Transport 1 Z206

Chair: **Tim Ryley** | Griffith University

63 Who takes action in carbon offsetting? Revealed preferences among frequent flyers

(Julia Herget, Frankfurt University of Applied Sciences; Vanessa Kubath, Frankfurt University of Applied Sciences; Kirstin Zimmer, Frankfurt University of Applied Sciences)

248 Cost sharing for sustainable aviation: Assessing the passengers' willingness to pay for sustainable aviation fuel by choice experiment

(Katsuya Hihara, Tokyo Metropolitan University)

373 Integration of carbon offsetting into carbon flight labels

(Wen-Chun Tseng, Singapore Institute of Technology; Chao-Hung Chiang, National Penghu University of Science and Technology; Nguyen The Hoang, Singapore Institute of Technology; Grace Lee, JW Aviation Consultancy)

179 The waste challenge facing air transport: A literature review into the enablers and barriers for a sustainable future

(Tim Ryley, Griffith University; Baumeister Stefan, University of Jyväskylä; Chamari Jayarathna, Griffith University; Savindi Caldera, University of the Sunshine Coast; Abraham Leung, Griffith University)

11:00 – 12:30 M1-3 Air Transport Policy & Regulation 1

Z212

Chair: **Chrystal Zhang** | RMIT University

- 118 The impact of open visa policies on the international accessibility of china's major hub airports: An empirical study
(Jianxiu Xiao, University of International Business and Economics; Meng Hou, Civil Aviation University of China; Xingchen Guo, University of International Business and Economics (UIBE); Hangjun Yang, University of International Business and Economics (UIBE))
- 165 Subsidizing clean skies: International trade law implications of sustainable aviation fuel (SAF)
(Anfield Ho Ming Lam, The Chinese University of Hong Kong; Zhuoqi Ding, The Chinese University of Hong Kong; Jae Woon Lee, The Chinese University of Hong Kong; Max Ting Fung Lui, The Chinese University of Hong Kong)
- 273 Penalties as prices? Evaluating airline strategic responses to tarmac delay penalties in the US
(Hideki Fukui, Ehime University; Martin Dresner, University of Maryland; Chikage Miyoshi, International Air Transport Association (IATA))
- 119 Assessing air transport competition between China and America markets
(Chrystal Zhang, RMIT University; Chen Lin, RMIT University; Chunlin Yang, RMIT University; Yuhe Qin, RMIT University; Yuchen Han, RMIT University; Yifu Qiu, RMIT University)

11:00 – 12:30 M1-4 Aviation & Economic Development 1

Z405

Chair: **Chunyan Yu** | Embry-Riddle Aeronautical University

- 31 Catalytic effects of regional airports - The case of St. Moritz
(Niklas Schoenherr, University of St. Gallen; Andreas Wittmer, University of St. Gallen)
- 262 Regional welfare and airport development with perfect regional spillover
(Nobuo Akai, Osaka University)
- 140 The impact of supply chain risk on the high-quality development of the Chinese aviation industry
(Wenliang Ma, Capital University of Economics and Business; Qiang Wang, University of International Business and Economics; Hangjun Yang, University of International Business and Economics)
- 337 General aviation and the local economy in the United States
(Chunyan Yu, Embry-Riddle Aeronautical University; Sohee Yoo, Embry-Riddle Aeronautical University)

11:00 – 12:30 M1-5 Airport Operations 1

Z406

Chair: **Suwan Yin** | Sichuan University

- 146 Improved prediction method for aircraft noise levels at Gimpo International Airport
(Myeongsik Lee, Korea Airports Corporation; Hyunsoo Cho, Korea Airports Corporation)
- 213 Methodology for estimating airport terminal capacity using a queuing model: With a focus on security check facility
(Yongseok Choi, Korea Aerospace University; Dongsung Kang, Korea Aerospace University; Zin Min Paing, Korea Aerospace University; Juhwan Lee, Korea Aerospace University; Hojong Baik, Korea Aerospace University)

- 147 A method for aircraft taxi-out time prediction based on a road-level traffic network
(Wenjie Zhang, Nanjing University of Aeronautics and Astronautics; Xiaowei Tang, Nanjing University of Aeronautics and Astronautics)
- 357 Adaptive metamodeling approach for real-time taxiing time estimation on airport surface
(Suwan Yin, Sichuan University; Qing Wang, Sichuan University; Ke Han, Southwest Jiaotong University)

11:00 – 12:30 M1-6 Airline Economics & Performance 1

Z407

Chair: **Yulai Wan** | The Hong Kong Polytechnic University

- 40 Strategic slack: Multimarket contact and schedule padding practices in the U.S. airline industry
(Jules Yimga, Embry-Riddle Aeronautical University)
- 353 Flight selection and pricing model considering the impact of arrival delays
(Qi Sun, Beihang University; Tian-Liang Liu, Beihang University; Qiong Tian, Beihang University)
- 320 Examining the impact of operational efficiency on the relation between economic and geopolitical uncertainties and the default risk of airlines
(Yun Shwe Yee Maung, Swinburne University of Technology; David Tan, American University of the Middle East; Amir Arjomandi, University of Wollongong; Ian Douglas, University of New South Wales)
- 41 Blurring boundaries? Investigating cost efficiency and business model convergence in airlines
(Fecri Karanki, Purdue University; Chunyan Yu, Embry Riddle Aeronautical University)

11:00 – 12:30 M1-7 Marketing & Consumer Behaviour in Air Transport 1

Z409

Chair: **Nicolò Avogadro** | University of Bergamo

- 14 Airline ground staff service quality, emotional satisfaction, and behavioral intentions - Application of services theatre model
(Chi-Ruey Jeng, Chaoyang University of Technology)
- 270 Investigating factors that influence academic air travel intentions of university scholars in Taiwan
(Chien-Shuan Wu, National Kaohsiung University of Science and Technology, NKUST; Jin-Long Lu, National Kaohsiung University of Science and Technology, NKUST)
- 306 Analysis of behavioral intentions after flight cancellation using machine learning
(Runa Saito, Tokyo Denki University; Kazuyuki Takada, Tokyo Denki University)
- 324 The impact of long flight delays by airlines on service quality, customer satisfaction, and repurchase intention
(Ik Hyun Han, Korea Transport Institute; Myeong Hyeon Kim, Korea Transport Institute)

11:00 – 12:30 M1-8 Air Traffic Control 1

Z410

Chair: **Liquan Guo** | Hefei University of Technology

- 367 A model of real civil aviation air traffic prediction based on 4D trajectories data
(Ziyang Zhang, Beihang University; Qiong Tian, Beihang University)
- 116 Flight delay prediction using dynamic graph convolutional networks
(Woratat Leelaworaset, Institute of Science Tokyo; Sugishita Kashin, Institute of Science Tokyo; Hanaoka Shinya, Institute of Science Tokyo)

- 137 Impact of temporary airport closures on flight delay propagation
(Kashin Sugishita, Institute of Science Tokyo; Hiroki Mizutani, Institute of Science Tokyo; Shinya Hanaoka, Institute of Science Tokyo)
- 207 Air traffic flow spatial-temporal modeling and prediction based on graph neural network
(Shixiong Zhou, Civil Aviation Flight University of China)

11:00 – 12:30 M1-9 Air Cargo

Z413

Chair: **Hangjun Yang** | University of International Business and Economics

- 8 Predicting air cargo turnaround times
(Anne Lange, Frankfurt University of Applied Sciences; Daniel Dobos, University of Luxembourg; Sandria Rüßmann, ESCP Business School; Sarah Van der Auweraer, IÉSEG School of Management)
- 39 An enhanced system for air cargo movement detection using deep learning and explainable AI
(Jiahong Que, Frankfurt University of Applied Sciences; Bernhard Lehner, Frankfurt University of Applied Science; Leon Schnieber, Frankfurt University of Applied Science; Anne Lange, Frankfurt University of Applied Science; Benjamin Bierwirth, Frankfurt University of Applied Science)
- 22 The price of speed: The economic and environmental cost of e-commerce giants
(Bernardo Puente-Mejia, Frankfurt University of Applied Sciences; Anne Lange, Frankfurt University of Applied Sciences)
- 42 Shifting dynamics in the global post and parcel industry: An industry architecture analysis
(Stijn Michielsens, University of Antwerp; Serhat Yüksel, University of Antwerp; Jose Anson, Universal Postal Union (UPU); Wouter Dewulf, University of Antwerp; Roel Gevaers, University of Antwerp)
- 325 Impact of open sky agreement on cargo volume at Incheon International Airport
(Gapbong Kim, Inha University; TaeSeung Kim, Inha University, Asia-Pacific School of Logistics)

12:30 – 14:00 Lunch

Venue: Communal Staff Restaurant, 4/F, Communal Building

14:00 – 15:30 Paper Session II

Venue: 2/F & 4/F, Block Z

14:00 – 15:30 M2-1 Airline Economics & Performance 2

Z204

Chair: **Christian Bomtemp** | ENAC & Toulouse School of Economics

- 128 Multimarket contact, schedule differentiation, and price discrimination: Re-examination of the U.S. domestic airline market
(Zheng Lei, Swinburne University of Technology; Tommy Cheung, Swinburne University of Technology; Rockie U Kei Kuok, Swinburne University of Technology)
- 339 Do nonstop flights charge higher than connection flights? Evidence from the US domestic market
(Louise Lu Li, The Hong Kong Polytechnic University; Yulai Wan, The Hong Kong Polytechnic University; Dong Yang, The Hong Kong Polytechnic University)
- 400 Too big to stay? The downsizing of Italy's flag carrier and its consequences on airline pricing

(Borsati Mattia, University of Barcelona; Angela S. Bergantino, University of Bari Aldo Moro; Fageda Xavier, University of Barcelona; Intini Mario, University of Bari)

- 354 Price competition and endogenous product choice in networks: Evidence from the US airline industry

(Christian Bontemps, ENAC & Toulouse School of Economics; Cristina Gualdani, Queen Mary University; Kevin Remmy, University of Mannheim)

14:00 – 15:30 M2-2 Sustainability in Air Transport 2

Z206

Chair: **Christoph Klingenberg** | Worms University

- 340 Systematic literature review of hydrogen powered aviation
(Zahra Jaffary, University of South Australia; Shane Zhang, University of South Australia)
- 38 The use of hydrogen in the Japan's aviation sector
(Kazuma Komikado, Japan Transport and Tourism Research Institute; Yurie Okazaki, Japan Transport and Tourism Research Institute; Wataru Kobayashi, Japan Transport and Tourism Research Institute; Masanobu Taniguchi, Japan Transport and Tourism Research Institute; Kazuhiro Kaiho, The Japan Research Institute, Limited)
- 20 Pioneering tomorrow: Adapting airport infrastructures for hydrogen aircraft
(Vasco Valente, Universidade Lusofona; Lucia Piedade, Universidade Lusofona)
- 54 Decarbonizing regional air traffic
(Christoph Klingenberg, Worms University; Hujer Jens, Heilbronn University)

14:00 – 15:30 M2-3 Marketing & Consumer Behaviour in Air Transport 2

Z212

Chair: **Paul Chiambaretto** | MBS School of Business

- 1 Assessing the effects of the C919's commercial launch on airfare and load factors: A time trend and dynamic analysis
(Yonglei Jiang, Beijing Jiaotong University; Ailing Huang, Beijing Jiaotong University; Shunan Yu, Dalian Maritime University; Jingci Xie, Shandong University)
- 11 Passengers' acceptance of biometric check-in kiosks: The case of Thailand airports
(Phutawan Ho Wongyai, Massey University; Thanh Ngo, Massey University; Hanjun Wu, Massey University; Kan Tsui, University of Southern Queensland; Thu-Huong Nguyen, Victoria University)
- 266 Basic analysis on the actual use of air travel by cruise passengers
(Koki Nakabayashi, Kanazawa University; MAKOTO FUJII, Kanazawa University; Yuma Morisaki, Kanazawa University)
- 410 Assessment of passengers' safety and risk attitudes on integrated urban air mobility and airline services
(Tao Feng, Hiroshima University; Ying Zhao, Hiroshima University; Yan Hu, Hiroshima University; Anming Zhang, University of British Columbia)
- 30 Digitalisation of the air passenger experience: Real progress or a source of stress for passengers?
(Paul Chiambaretto, MBS School of Business; Sara Laurent, MBS School of Business; Audrey Rouyre, MBS School of Business; Audrey Portes, MBS School of Business; Jonathan Luffarelli, MBS School of Business; Pauline Alessandra, University of Montpellier; Marie Théo Anne-Sophie Bovis Justy Fernandez, University of Montpellier)

14:00 – 15:30 M2-4 Air Transport Demand 1

Z405

Chair: **Andreas Wittmer** | University of St. Gallen

- 149 Latent class analysis with factor-analytic choice map for airline choice
(Chieh-Hua Wen, Feng Chia University; Chiang Fu, National Cheng Kung University)
- 219 Estimating synthetic willingness to pay for supersonic flights using large language models: A latent-class conditional logit approach
- 319 Study on longitudinal transition and intergenerational differences in overseas travel rates by panel analysis
(Kenta Yanagimachi, Tokyo Denki University; Kazuyuki Takada, Tokyo Denki University)
(Augusto Voltes-Dorta, University of Edinburgh; Pere Suau-Sánchez, Cranfield University)
- 29 Understanding the importance of service quality aspects in air travel for Generation Z passengers: A door-to-door perspective
(Andreas Wittmer, University of St. Gallen; Elinae Hobi, University of St. Gallen)

14:00 – 15:30 M2-5 Airport Operations 2

Z406

Chair: **Gangyan Xu** | The Hong Kong Polytechnic University

- 12 A stochastic programming approach for gate assignment problem under realistic constraints
(Yifan Xu, Nanjing University of Aeronautics and Astronautics; Zhiyuan Shen, Nanjing University of Aeronautics and Astronautics; Xiaowei Tang, Nanjing University of Aeronautics and Astronautics; Xiaoqian Sun, Beihang University)
- 163 A two-stage robust optimization for airport slot allocation and gate assignment
(Xuanji Long, The Hong Kong Polytechnic University; Wei Liu, The Hong Kong Polytechnic University)
- 294 Optimizing slot allocation in multi-airport systems considering intra-transfer passengers
(Guoqiang Xu, Beijing Jiaotong University)
- 283 DPLGAP: Direct preference learning for solving large-scale real-time airport gate assignment problems
(Zhuoming Du, Beihang University; Sebastian Wandelt, Beihang University; Xiaoqian Sun, Beihang University)
- 371 Adaptive weight Q-network for multi-objective airport gate assignment under varying conditions
(Gangyan Xu, The Hong Kong Polytechnic University; Yuli Zou, The Hong Kong Polytechnic University)

14:00 – 15:30 M2-6 Airport Strategy & Management 1

Z407

Chair: **Yue Gu** | Central Queensland University

- 200 Development of a business model for local government airport operations
(Hojun Yoon, Hanseo University; Cho HaEun, Hanseo University; Kim YeonMyung, Hanseo University)
- 253 Emerging trends of international airport terminal facilities: An exploratory thematic study
(Nurul Hazwani Hamzah, Universiti Teknologi MARA; Wan Mazlina Wan Mohamed, Universiti Teknologi MARA; Saiful Aman Sulaiman, Universiti Teknologi MARA)
- 19 A systematic literature review on airport resilience: Current status and future research
(Yue Gu, Central Queensland University; Wen-Chun Tseng, Singapore Institute of Technology)

14:00 – 15:30 M2-7 Urban Aviation Mobility 2

Z409

Chair: **Yeon Myung Kim** | Hanseo University

- 18 UAM vertiport takeoff and landing location estimation based on image information

(Seungjun Lee, Hanseo University; Hyoseok Chang, Hanseo University; Dohyun Kim, Hanseo University)

- 138 A comprehensive review of network design and planning for urban air mobility: From demands to operations
(Wenjing Liu, The Hong Kong University of Science and Technology (Guangzhou); Ziyu Wang, The Hong Kong University of Science and Technology (Guangzhou); Shuai Jia, The Hong Kong University of Science and Technology (Guangzhou))
- 232 Urban vertiport planning: An approach based on the MESA methodology
(Edson Aníbal de Aquino Guedes Filho, Aeronautics Institute of Technology (ITA); Marcelo Xavier Guterres, Aeronautics Institute of Technology (ITA); Giovanna Miceli Ronzani Borille, Aeronautics Institute of Technology; Carolina Silva Ansélmo, Aeronautics Institute of Technology; João Basílio Tarelho Szenczuk, Aeronautics Institute of Technology)
- 363 Selection of locations for transport UAV sites in urban three-dimensional space
(Boyan Yang, Beihang University; Peng Liu, Beihang University; Pengfei Wang, Hebei Normal University of Science & Technology; Qiong Tian, Beihang University)

14:00 – 15:30 M2-8 Air Transport and COVID-19

Z410

Chair: **Changmin Jiang** | The Hong Kong Polytechnic University

- 80 Global pandemic response through vaccine sharing strategy and transportation management
(Yang Liu, Institute of Science Tokyo; Kashin Sugishita, Institute of Science Tokyo; Shinya Hanaoka, Institute of Science Tokyo)
- 240 An overview of domestic commercial aviation in India post COVID-19
(Mahesh Sucheendran, Indian Institute of Technology Hyderabad; Bhaskar B., Indian Institute of Technology Hyderabad)
- 296 How does air connectivity affect bilateral service trade of the United States before and during COVID-19 pandemic? A double machine learning approach
(Ziming Wang, The Hong Kong Polytechnic University; Kun WANG, The Hong Kong Polytechnic University; Jiehong Qiu, The Hong Kong Polytechnic University; Xiaowen Fu, The Hong Kong Polytechnic University; Xiangru Wu, The Hong Kong Polytechnic University)
- 412 Airline competition and government regulation during a global pandemic: A retrospective analysis
(Changmin Jiang, The Hong Kong Polytechnic University; Shiyuan Zheng, Shanghai Maritime University; Xiaowen Fu, The Hong Kong Polytechnic University; Ying Huang, Western Australia)

14:00 – 15:30 M2-9 Aviation Safety & Security

Z413

Chair: **Fan Li** | The Hong Kong Polytechnic University

- 122 A novel framework using topic modeling and knowledge graphs for aviation safety analysis in Australian airspace
(Siavash Farzadnia, The University of Sydney; Rico Merkert, The University of Sydney; Matthew Beck, The University of Sydney)
- 277 An eVTOL dynamic collision avoidance algorithm based on artificial potential field and velocity obstacle
(Biao He, Xihua University; Li Tang, Xihua University; Jiacheng Yin, Xihua University; Xiaowen Fu, The Hong Kong Polytechnic University)

- 280 Bioacoustic-based alarm tone design: Optimisation of crewmember cognitive mechanisms through bionic natural soundscapes
(Chao Tang, Hunan University; Xiaohui Hao, COMAC; Yiming Zou, Hunan university; Hao Tan, Hunan University)
- 73 GPS interference and its impact on aviation sustainability
(Michael Felux, ZHAW - Zurich University of Applied Sciences; Manuel Waltert, ZHAW - Zurich University of Applied Sciences; Benoit Figuet, ZHAW - Zurich University of Applied Sciences)

15:30 – 16:00 Coffee Break

Venue: 2/F, Block Z

16:00 – 17:30 KAPSARC Special Session (Open to all)

Venue: Z409

Theme: Regional policies, infrastructure challenges, and investment frameworks unique to the Middle East

4:00 – 4:20 Opening remarks: Saudi Arabia's challenges from Vision 2030

Andres Felipe Guzman | KAPSARC, Saudi Arabia

This presentation will highlight the historical context, growth projections, and key challenges in Saudi Arabia's aviation sector within a broader regional framework. The industry has rapidly evolved from modest mid-20th-century beginnings into a pillar of national development under Vision 2030. The Kingdom is launching new airlines –such as Riyadh Air– with large aircraft orders and revamping airport infrastructure, including a new mega-hub in Riyadh, aiming to triple annual passenger numbers to 330 million by 2030.

4:20 – 5:00 Future of aviation in Saudi Arabia and pathways to its decarbonization

Mohammed Alanazi | Airports Sustainability Director, General Authority for Civil Aviation (GACA), Saudi Arabia

This talk will spotlight Saudi Arabia's strategies to decarbonize the aviation sector, including introducing operational efficiency innovations and infrastructure modernization. It will provide a platform for GACA to present the CAESP and outline current and future initiatives aligned with national and regional sustainability goals.

5:00 – 5:30 Panel Discussion

Topic: Navigating the path to net-zero aviation in Saudi Arabia and the region

This panel will explore the broader policy, financing, and technological challenges and opportunities for decarbonizing aviation in the region. Discussions will focus on aligning national priorities with global net-zero goals.

Panellists: **Mohammed Alanazi** | Airports Sustainability Director, General Authority for Civil Aviation (GACA), Saudi Arabia

Marina Efthymiou | Professor of Aviation Management, Dublin City University, Ireland

Andres Felipe Guzman | KAPSARC, Saudi Arabia

Moderator: **Chetan Talwar** | KAPSARC, Saudi Arabia

16:00 – 17:30 Paper Session III

Venue: 2/F & 4/F, Block Z

16:00 – 17:30 M3-1 Airline Strategy & Management 1

Z204

Chair: **Kun Wang** | The Hong Kong Polytechnic University

- 26 Challenges of alliance portfolio management during aircraft manufacturer servitization (Marie Fabre, University of Montpellier; Paul Chiambaretto, MBS School of Business)
- 117 Commercial aircraft export patterns considering MRO: Leasing vs. direct exports (Ruotian Chen, University of International Business and Economics; Hangjun Yang, University of International Business and Economics; Changmin Jiang, The Hong Kong Polytechnic University)
- 365 Competition and cooperation strategies between a major airline and the third-party aggregation platforms (Lijia Wang, Beihang University; Xinwei Li, Beihang University; Qiong Tian, Beihang University)
- 201 The relationship between air taxi and ground taxi companies: Competition or collaboration? (Kun Wang, The Hong Kong Polytechnic University; Wenyi Xia, HEC Montréal; Zhongyi Jin, The Hong Kong Polytechnic University; Kam K.H. Ng, The Hong Kong Polytechnic University)

16:00 – 17:30 M3-2 Sustainability in Air Transport 3

Z206

Chair: **Stefan Baumeister** | University of Jyväskylä, School of Business and Economics

- 148 Improving accuracy of carbon emissions by calculating the ground moving time of aircraft (Juhwan Lee, Korea Aerospace University; Se Yeon Jung, Incheon International Airport Corporation)
- 382 Uneven skies: Exploring national disparities and efficiency in global aviation emissions through flight big data (Weijun Liao, Hefei University of Technology; Chunan Wang, Beihang University; Qing Ji, China University of Petroleum (Beijing))
- 335 Spatial-frequency synergy: New benchmarks for contrails detection on satellite imagery (Rong Tang, The Hong Kong Polytechnic University; Kam.K.H. NG, The Hong Kong Polytechnic University)
- 62 The emissions reduction potentials of narrow-body aircraft on Trans-Atlantic flights (Stefan Baumeister, University of Jyväskylä; Muniba Rauf, University of Jyväskylä)

16:00 – 17:30 M3-3 Intermodal Operations & Modal Competition 1

Z212

Chair: **Ian Douglas** | University of New South Wales (Sydney)

- 10 Comparison of PCA and fractal analysis approaches in the evaluation of air-HSR intermodal network (Mengyuan Lu, Cranfield University; Perez Edgar Jimenez, Cranfield University; Mason Keith, Cranfield University)
- 61 How much did the Hokuriku Shinkansen HSR affect the volume of demand/supply of the competing aviation markets? (Tomoki Ishikura, Tokyo Metropolitan University)
- 192 Impact of airline company's strategies on the market share in intercity transportation (Dohun Kim, Inha University; Hun-Koo Ha, Inha University; Zehui Tang, Inha University)

16:00 – 17:30 M3-4 Airline Operations 1

Z405

Chair: **Zhongzhen Yang** | Ningbo university

- 51 A novel airline integrated crew scheduling approach with colleague familiarity and crew experience considerations

(Tianyu Wang, The Hong Kong Polytechnic University; Xin Wen, The Hong Kong Polytechnic University; Sai-Ho Chung, The Hong Kong Polytechnic University; Hoi-Lam Ma, The Hong Kong Polytechnic University of Hong Kong)

- 281 Neighborhood search heuristics for solving airline scheduling and recovery problems
(Shuming Chang, Beihang University; Xiaoqian Sun, Beihang University; Sebastian Wandelt, Beihang University)
- 343 A multi-agent reinforcement learning approach to the aircraft recovery problem in airline disruption management
(Hong Lin, University of New South Wales; Cheng-Lung Wu, UNSW)
- 359 Fleet total arrival delay time prediction and fleet assignment
(Jingying Li, National University of Singapore; Wenxuan Shan, National University of Singapore; Chung Piau Teo, National University of Singapore)

16:00 – 17:30 M3-5 Airport Operations 3

Z406

Chair: **Yonglei Jiang** | Beijing Jiaotong University

- 87 Optimal vehicle fleet and charging strategy for electric ground service equipment at airports considering real flight schedule
(Na Yan, Beihang University; Tieqiao Tang, Beihang University; Jia He, Beijing University of Technology)
- 368 Two-stage shareability network for electric vehicle fleet sizing in aircraft ground handling service
(Xuanyu Zhang, The Hong Kong Polytechnic University; Gangyan XU, The Hong Kong Polytechnic University; Yuying Long, The Hong Kong Polytechnic University)
- 255 Research on an stand assignment with consideration of APU replacement facilities usage and efficiency
(Ziao Li, Beihang University; Yunqi Gao, Beihang University; Rui Kang, Beihang University)
- 342 A hierarchical optimization framework for large-scale aircraft stand allocation: Integrating predictive scheduling and multi-objective Pareto refinement
(Pei Xiao, Nanjing University of Aeronautics and Astronautics; xiao wei tang, Nanjing University of Aeronautics and Astronautics)

16:00 – 17:30 M3-6 Airline Network Development 1

Z407

Chair: **Birolini Sebastian** | University of Bergamo

- 97 Balancing aviation emission reduction and airline network resilience with short-haul flight bans: A machine learning-based analysis
(Ziyu Cui, The Hong Kong Polytechnic University; Hanjiang Dong, The Hong Kong Polytechnic University; Xiaowen Fu, The Hong Kong Polytechnic University; Kun Wang, The Hong Kong Polytechnic University)
- 216 Environmental implications of network structures: Environmental economies of scale and optimality of hub & spoke systems
(Nicolò Avogadro, University of Bergamo; Eric Pels, Vrije Universiteit Amsterdam; Renato Redondi, University of Bergamo)
- 391 A multi-dimension method for assessing air network resilience
(Xiaojia Yang, Zhengzhou University; Tao Li, Zhengzhou University; Ruili Zhu, Zhengzhou University)
- 52 Sustainable network planning: Assessing potential mitigation of aviation emissions through centralized network redesign of long-haul connections

(Birolini Sebastian, University of Bergamo; Avogadro Nicolò, University of Bergamo; Malighetti Paolo, University of Bergamo; Paleari Stefano, University of Bergamo)

16:00 – 17:30 M3-7 Airport Economics & Performance 1

Z410

Chair: **Tolga Ulku** | IU International University of Applied Sciences

- 48 Airport parking management strategies considering non-aeronautical business
(Yue Huai, The Hong Kong University of Science and Technology; Kun Wang, The Hong Kong Polytechnic University; Hong K. Lo, The Hong Kong University of Science and Technology; Anming Zhang, University of British Columbia)
- 242 Airport pricing when airport congestion affects passengers' concession consumption
(Wenyi Xia, HEC Montreal; Wang Kun, The Hong Kong Polytechnic University (PolyU); Leonardo Corbo, University of Bologna; Tae Hoon Oum, University of British Columbia; Chunyan Yu, Embry-Riddle Aeronautical University)
- 142 Airport catchment expansion and competition: The case of high-speed rail entry in China
(Hongyi Gu, Hong Kong Polytechnic University; Yulai Wan, Hong Kong Polytechnic University)
- 217 The effect of entry and exit on airport competition in Europe
(Tolga Ulku, IU International University of Applied Sciences; Hans Martin Niemeier, University Of Applied Sciences Bremen; Shravan Kumar, German Aerospace Center DLR; Georg Hirte, Technical University Dresden; Wolfgang Grimme, German Aerospace Center DLR; Cathal Guiomard, Dublin City University)

16:00 – 17:30 M3-8 Russia-Ukraine War & Aviation

Z413

Chair: **Bijan Vasigh** | Embry-Riddle Aeronautical University

- 86 Impact of the Russia-Ukraine war on aviation carbon emissions
(Chunan Wang, Beihang University; Qing Ji, China University of Petroleum (Beijing); Weijun Liao, Hefei University of Technology; Kun Wang, Hong Kong Polytechnic University; Ying Cheng, Beihang University; Nieyan Cheng, China University of Petroleum (Beijing); Shuai Yue, Hong Kong Polytechnic University)
- 113 The Russian and Ukraine war: Immediate financial results in European aviation financial markets
(Javad Gorjidoz, Embry-Riddle Aeronautical University; Olcay Olcen, Aviation Consulting Group, LLC; Bijan Vasigh, Embry-Riddle Aeronautical University)
- 259 Quantifying the impact of Russian sanctions on air cargo and passenger volume in Uzbekistan
(Akbar Makhmud ugli Usmanov, INHA University; Tae Seung Kim, INHA university)
- 267 Optimization of carbon emissions on the altered flight routes caused by the Russia-Ukraine war
(Ji-Won Seo, Korea Aerospace University; Yeon-Sub Yoon, Korea Aerospace University; Wan-Sik Won, Korea Aerospace University)

17:30 – 18:30 Authors Meet the Editors (Open to all)

Venue: Z205

Attending publisher/editors:

Riadh Khelil | Elsevier

Senior Publisher

Anming Zhang | University of British Columbia

Co-Editor-in-Chief, Transportation Research Part A & Transport Economics and Management

Becky PY Loo | Hong Kong University

Editor-in-Chief, Travel Behaviour and Society

Gianmaria Martini | University of Bergamo

Editor-in-Chief, Journal of Air Transport Management

Xiaowen Fu | The Hong Kong Polytechnic University

Editor-in-Chief, Case Studies on Transport Policy

Changmin Jiang | The Hong Kong Polytechnic University

Co-Editor-in-Chief, Transport Economics and Management

Martin Dresner | University of Maryland

Co-Editor-in-Chief, Journal of the Air Transport Research Society

Xiaoqian Sun | Beihang University

Co-Editor-in-Chief, Journal of the Air Transport Research Society

THURSDAY, 3rd JULY – Academic Plenary Session and Paper Sessions

08:30 – 17:30 Conference Registration

Venue: 2/F, Block Z

09:00 – 10:00 Academic Keynote Speech (live streaming on-site and via Whova)

Venue: Z209, Block Z

Chair: **Gianmaria Martini** | University of Bergamo

Speaker: **Federico Ciliberto** | University of Virginia

Bridging retrospective and prospective merger analyses: The case of US airline mergers

10:00 – 10:45 Global Airport Benchmarking Report

Venue: Z209, Block Z

Chunyan Yu | Embry-Riddle Aeronautical University

10:45 – 11:15 Coffee Break

Venue: 2/F, Block Z

11:15 – 12:45 Paper Session IV

Venue: 2/F & 4/F, Block Z

11:15 – 12:45 M4-1 Unison Industry Session: Air Cargo Operations,
Demand Modelling & System Planning

Z409

This session offers a comprehensive examination of modern air cargo systems, covering the full scope of cargo planning and operations and addressing operational challenges.

Chair: **Fecri Karanki** | Purdue University

75 Strategic evolution of integrators: A comprehensive literature review, research gap analysis and future directions

(Serhat Yuksel, University of Antwerp; Wouter Dewulf, University of Antwerp; Roel Gevaers, University of Antwerp)

91 Matching demand and supply in air cargo routing: A novel optimization approach

(Vincent Van Bockstaele, University of Antwerp; Alessandro Bombelli, Delft University of Technology; Wouter Dewulf, University of Antwerp; Sven Buyle, University of Antwerp)

- 7 Flying through uncertainty: Air transportation's impact on supply chain resilience and inventory efficiency
(Woohyun Cho, The University of New Orleans; Jian-Yu Ke, California State University, Dominguez Hills; Hao Su, The University of New Orleans)
- 332 Routing optimization for the traveling salesman problem with drone in medical supply distribution
(Yutong Ha, Inha University; Tae Seung Kim, Inha University)

11:15 – 12:45 M4-2 Marketing & Consumer Behaviour in Air Transport 3 Z204

Chair: **Evangelia Pantelaki** | Emirates Aviation University

- 9 Agile development and prediction of passenger profiles via machine learning
(Ram Kamath, Bauhaus Luftfahrt)
- 13 Effective social media practices in the airline industry
(Iryna Heiets, RMIT University; Doreen La, Central Queensland University; Hou Kuan Yeung, RMIT University)
- 135 Enhancing sustainable flight choices: The impact of digital nudging on consumer behavior in airline booking
(Henrik Wittwer, University of St.Gallen (HSG); Andreas Wittmer, University of St.Gallen (HSG))
- 278 Reasons and logic for decision-making process for business jets' usage: A grounded theory approach
(Evangelia Pantelaki, Emirates Aviation University; Mark J. Pierotti, Abu Dhabi Aviation, Emirates Aviation University)

11:15 – 12:45 M4-3 Sustainability in Air Transport 4 Z206

Chair: **Abraham Leung** | Griffith University

- 356 Mapping the green skies: A bibliometric analysis of green aviation research
(Fangyu Cao, Beihang University; chunan Wang, Beihang University; Shangrong Chen, Tsinghua University)
- 274 Decarbonizing air transport: Insights from a quasi-experiment
(Flavio Porta, University of Bergamo; Megersa Abate, World Bank; Alessandro Barattieri, World Bank; Alberto Brugnoli, University of Bergamo)
- 372 Does high-speed rail promote green aviation? — A case study of the Beijing-Shanghai market
(Qing Ji, China University of Petroleum (Beijing); Shuai Yue, The Hong Kong Polytechnic University; Chunan Wang, Beihang University; Ying Fan, Beihang University)
- 360 Planes, rail, and cars: Can electrification transform the intercity carbon budget? Case study of Finland
(Abraham Leung, Griffith University; Stefan Baumeister, University of Jyväskylä; Tim Ryley, Griffith University)

11:15 – 12:45 M4-4 Urban Aviation Mobility 3 Z212

Chair: **Xiaoqian Sun** | Beihang University

- 246 A review of current urban air mobility development and future directions (working title)
(Xinyu Tan, University of Antwerp; Sven Buyle, University of Antwerp; Wouter Dewulf, University of Antwerp)
- 376 Analysis of the relationship between airport use and subjective well-being in rural areas

- (Taiki Mashio, Kanazawa University; YUMA MORISAKI, Kanazawa University; Makoto Fujiu, Kanazawa University)
- 408 On the government interventions in urban air mobility markets
(Zhongyi Jin, The Hong Kong Polytechnic University; Kam K. H. Ng, The Hong Kong Polytechnic University; Fangni Zhang, The University of Hong Kong; Wei Liu, The Hong Kong Polytechnic University; Chenliang Zhang, The Hong Kong Polytechnic University)
- 77 Adoption mechanisms of low-altitude airspace technology for medical drones: A mixed-methods study extending technology acceptance models
(Yumei Liu, University Malaya)
- 284 LAERACE: Taking the policy fast-track towards low-altitude economy
(Xiaoqian Sun, Beihang University; Shuang Wang, Beihang University; Xuejun Zhang, Beihang University; Sebastian Wandelt, Beihang University)

11:15 – 12:45 M4-5 Aviation & Economic Development 2

Z405

Chair: **Jing Lu** | Nanjing University of Aeronautics and Astronautics

- 6 Sustainable tourism in Paris: Enhancing the aviation sector's role in a green future
(Jocelyne Napoli, Unniversity of Toulouse)
- 386 Spatial spillover effects of hub airports on African economic development
(Yilin Zhang, University of British Columbia; Tommy Cheung, Swinburne University of Technology; Anming Zhang, University of British Columbia)
- 398 Assessing the international High-Tech products transport resilience with a novel connectivity index: Evidence from the High-Tech products transport from mainland China to the United States
(Liquan Guo, Hefei University of Technology; Wenjing Song, Hefei University of Technology)
- 261 Research on the impact of integrated transportation networks on the development of airport economic zones
(Jing Lu, Nanjing University of Aeronautics and Astronautics; Lirui Wang, Nanjing University of Aeronautics and Astronautics; Jiaxin Ji, Nanjing University of Aeronautics and Astronautics; Zhongzhen Yang, Ningbo University)

11:15 – 12:45 M4-6 Airport Operations 4

Z406

Chair: **Suhyung Lee** | Korea Airports Corporation

- 158 Balancing efficiency and equity: Optimizing airport bus schedules for accessibility across socioeconomic groups
(Tinghe Zhang, The Hong Kong Polytechnic University; Ang Li, The Hong Kong Polytechnic University; Lingxiao Wu, The Hong Kong Polytechnic University; Shriya Karam, Massachusetts Institute of Technology)
- 272 Characterization of multi-agent collaborative behavior network based on complex network
(Yue Zhang, Nanjing University of Aeronautics and Astronautics; Shengrun Zhang, Nanjing University of Aeronautics and Astronautics; Chengying Lv, Nanjing University of Aeronautics and Astronautics; Xiaowei Tang, Nanjing University of Aeronautics and Astronautics; Frank Witlox, Ghent University)
- 197 A methodological framework for identifying airport operational efficiency based on ICAO KPIs
(YongChan Kim, Hanseo University; JaeWoo Park, Hanseo University; SungKwan Ku, Hanseo University)

- 182 Exploring quality differentiation between open and garage parking: Evidence from Gimpo International Airport
(Suhjung Lee, Korea Airports Corporation)

11:15 – 12:45 M4-7 Air Transport Policy & Regulation 2

Z407

Chair: **Antigoni Lykotrafiti** | Queen Mary University of London

- 34 Antitrust enforcement in the airline industry: A critical assessment of two recent cases
(Andreas Knorr, German University of Administrative Sciences Speyer; Alexander Eisenkopf, Zeppelin University Friedrichshafen)
- 181 Development of an enhanced airline punctuality evaluation system reflecting long delays
(Soyeon Kim, Korea Transport Institute; Myeonghyeon Kim, Korea Transport Institute)
- 260 Possible global legislative system for a future international suborbital transport
(Koichi Fujisaki, Japan Transport and Tourism Research Institute; Sanae Mizuta, Japan Transport and Tourism Research Institute; Yurika Ishii, National Defense Academy; Shizuka Sakamaki, University of Shizuoka; Manami Sasaoka, Yokohama National University; Takayoshi Sugawara, Sedgefield & Partners; Kazuhiro Nakatani, Tokai University)
- 67 Hortatory language in EU comprehensive air transport agreements
(Antigoni Lykotrafiti, Queen Mary University of London)

11:15 – 12:45 M4-8 Airline Economics & Performance 3

Z410

Chair: **Achim Czerny** | The Hong Kong Polytechnic University

- 304 The effect of oil prices on airlines stock prices
(Ahmed Alsayed, University of Bergamo)
- 238 The environmental impact of airline delays: A focus on arrival delays and CO2 emissions
(Andrea Gualini, University of Bergamo; Estelle Malavolti, ENAC and Toulouse School of Economics (TSE))
- 311 Green technology adoption and market competition in aviation: A theoretical framework
(Luca Gallarati, University of Bergamo; Gianmaria Martini, University of Bergamo)
- 309 The decarbonisation of aviation with electric aircraft: an estimation of welfare effects with a structural model
(Gianmaria Martini, University of Bergamo; Davide Scotti, University of Bergamo; Andrea Gualini, University of Bergamo)
- 396 Greening aviation: Do we need a carbon-tax holiday or rather a carbon-tax boost?
(Achim Czerny, The Hong Kong Polytechnic University; Yulai (Sarah) Wan, The Hong Kong Polytechnic University; Yixiao Wang, The Hong Kong Polytechnic University)

11:15 – 12:45 M4-9 Air Traffic Control 2

Z413

Chair: **Joel Zhengyi Shon** | Tainan University of Technology

- 100 A data-driven approach to evaluating terminal airspace efficiency: A case study of Canadian airports
(Guilherme Trindade Tolentino Bernardo, Aeronautics Institute of Technology; Marcelo Xavier Guterres, Aeronautics Institute of Technology; Alexandre de Barros, University of Calgary)
- 234 Airspace capacity assessment under free flight regime with simulation algorithm
(Marcela Lopes, University of Calgary; Alex de Barros, University of Calgary; Marcelo Guterres, Instituto Tecnológico de Aeronáutica)

- 173 Multi-aircraft multi-objective autonomous interval management method with high scalability based on multi-agent reinforcement learning
(Jie Yuan, Northwestern Polytechnical University; Xiaochen Li, Northwestern Polytechnical University; Qi Zhang, Northwestern Polytechnical University; Zhiqiang Wei, Civil Aviation University of China)
- 329 Simulated impact of information sharing and collaboration within the decentralized ASEAN region
(Darryl Teo, Singapore University of Technology and Design; Peter Jackson, Singapore University of Technology and Design; Rakesh Nandi, Singapore University of Technology and Design; Gengling Dai, Singapore University of Technology and Design; Nuno Ribeiro, Singapore University of Technology and Design)

12:45 – 14:00 Lunch

Venue: Communal Staff Restaurant, 4/F, Communal Building

14:00 – 15:30 Paper Session V

Venue: 2/F & 4/F, Block Z

14:00 – 15:30 M5-1 Unison Industry Session: Aviation Forecasting Practice Z409

This session addresses industry practices on diverse aspects of aviation forecasting: global traffic, master planning, short vs. long-term planning, and cargo forecasting. The presentations cover global traffic forecasting post-COVID, airport master plan forecasting, and balancing short and long-term planning approaches.

Chair: **Liying Gu** | Airports Council International – North America

- 47 Forecasting the new normal: Modeling the recovery and post-COVID growth of global airport traffic forecasting
(Hyuntae Jung, Airports Council International (ACI) World)
- 185 Airport master plan forecasting in practice
(Sharon Sarmiento, Unison Consulting)
- 390 Balancing long-term vision with short-term planning in air traffic forecasting
(Paulos Ashebir Lakew, Boeing)
- 287 Forecast models of airline productivity for cargo service
(Hsiao Ling Chiu, National Taiwan Ocean University; Hua An Lu, National Taiwan Ocean University)

14:00 – 15:30 M5-2 Marketing & Consumer Behaviour in Air Transport 4 Z204

Chair: **Jung Kyu Choi** | Korea Aerospace University

- 15 Intermodal Vacation Travel
(Tessa Msibi, Frankfurt University of Applied Sciences)
- 222 Enhancing Hong Kong's competitiveness as a transfer hub—A focus on attracting mainland Chinese passengers
(Weichen Peng, The Hong Kong Polytechnic University; Xiangru Wu, The Hong Kong Polytechnic University; Kun Wang, The Hong Kong Polytechnic University; Xiaowen Fu, The Hong Kong Polytechnic University)
- 153 Carbon communication and its decarbonisation potential on door-to-door air-travel
(David Li, The University of Sydney; Matthew Beck, The University of Sydney; Rico Merkert, The University of Sydney)

- 120 Analysis of passengers' in-flight Wi-Fi acceptance and purchase intention based on psychological and behavioral variables
(Jung Kyu Choi, Korea Aerospace University; Rui Xu, Korea Aerospace University)

14:00 – 15:30 M5-3 Sustainability in Air Transport 5

Z206

Chair: **Yunqi Gao** | Beihang University

- 189 Comparative fuel analysis of PACOTS and UPR routes using ERA5 reanalysis data and BADA performance models
(DooYoung Kwon, Korea Aerospace University; Yoonjeong Choi, Korea Aerospace University; Wan-Sik Won, Korea Aerospace University)
- 377 Research on real-time aircraft fuel consumption prediction based on flight trajectory data
(Haihan Hu, Beihang University; Qiong Tian, Beihang University)
- 78 How alternative ground propulsion system usage policies affect taxi fuel consumption
(Manuel Waltert, Zurich University of Applied Sciences; Benoit Figuet, Zurich University of Applied Sciences; Michael Felux, Zurich University of Applied Sciences)
- 198 How can ground power units contribute to decarbonization and efficiency of airports - Case study with Chinese airports
(Yunqi Gao, Beihang University; Ruixin Wang, Civil Aviation University of China)

14:00 – 15:30 M5-4 Urban Aviation Mobility 4

Z212

Chair: **Kam K. H. Ng** | The Hong Kong Polytechnic University

- 99 Optimizing smart warehousing and drone delivery with uncertain demand via a two-stage stochastic model
(Yunxiang Shu, The Hong Kong Polytechnic University; Kam Hung Ng, The Hong Kong Polytechnic University; Chenliang Zhang, The Hong Kong Polytechnic University; Zhongyi Jin, The Hong Kong Polytechnic University)
- 184 Multi-function drones routing design for multi-service network
(Mingzhi Lyu, The Hong Kong Polytechnic University; Wei Liu, The Hong Kong Polytechnic University)
- 275 A UAV trajectory prediction method based on physics-information neural networks
(Xiaofei Guo, Xihua University; Li Tang, Xihua University; Kun Wang, The Hong Kong Polytechnic University)
- 351 Evaluating the potential of UAV delivery systems: A simulation-enabled approach
(Jingxian Lin, The University of Hong Kong; Jintao Ke, The University of Hong Kong; Xinglu Liu, The University of Hong Kong)

14:00 – 15:30 M5-5 Airport Economics & Performance 2

Z405

Chair: **Wouter Dewulf** | University of Antwerp

- 16 Reassessing Japanese airport operational efficiency: A non-parametric frontier approach
(Huaxin Hu, Universiti Sains Malaysia; Kok Fong See, Universiti Sains Malaysia)
- 224 Assessing airport environmental and financial efficiency using fuzzy network DEA: Evidence from Belgium and the Netherlands
(Jolien Pauwels, University of Antwerp; Sven Buyle, University of Antwerp; Wouter Dewulf, University of Antwerp)
- 230 Gate utilization efficiency from the aircraft assignment perspective: A case study for Taoyuan International Airport

(Chiao-Yu Peng, National Taiwan Ocean University; Hua-An Lu, National Taiwan Ocean University)

- 384 A systematic literature review: Getting the suitable variables for calculating economies of scale and scope airports in Indonesia
(Azmiati Sinta, Antwerp University; Wouter Dewulf, Antwerp University; Edi Abdurachman, Institute of Transportation & Logistic TRISAKTI; Sven Buyle, Antwerp University)

14:00 – 15:30 M5-6 Airport Operations 5

Z406

Chair: **Steven Leib** | Central Queensland University

- 133 Optimising vertiport integration into airports for AAM aircraft: A simulation framework
(Salim Hijazeen, Swinburne University of Technology; Tommy King-Yin Cheung, Swinburne University of Technology; Zheng Lei, Aviation; Jennifer A Hayward, Commonwealth Scientific and Industrial Research Organisation (CSIRO))
- 269 Resilience assessment of aircraft ground handling networks based on Petri Nets
(Chengying Lv, Nanjing University of Aeronautics and Astronautics; Shengrun Zhang, Nanjing University of Aeronautics and Astronautics; Yue Zhang, Nanjing University of Aeronautics and Astronautics; Xiaowei Tang, Nanjing University of Aeronautics and Astronautics; Frank Witlox, Ghent University)
- 268 Designing airport capacity for the evacuation of parked aircraft during a large-scale eruption
(Ayumu Kumaoka, Kyoto University; Mikio Takebayashi, Kobe University; Masamitsu Onishi, Kyoto University; Masato Iguchi, Kyoto University)
- 84 Validation of airport wayfinding simulation results against real-world passenger performance: A case study of Townsville International Airport
(Steven Leib, Central Queensland University; Yue Gu, Central Queensland University)

14:00 – 15:30 M5-7 Airline Economics & Performance 4

Z407

Chair: **Lynnette Dray** | University College London

- 143 Analysis of the cost structure of global airlines
(Byeong Il Choi, Inha University; Tae Seung Kim, Inha University)
- 256 Quantifying the impact of interventions on air route suspension using Cox proportional hazard models
(Turin Wong, University of New South Wales; Zhenyu Zhang, University of New South Wales; Tay Koo, University of New South Wales; Yi-Lung Chen, University of New South Wales; Ruwen Deng, University of New South Wales; Kan-Lin Lu, University of New South Wales)
- 164 Asymmetric index for measuring airline pairwise competitive intensity based on optimal transport theory
(Qian Liu, ENAC (Ecole Nationale de l'Aviation Civile); Paul Rochet, ENAC; Chantal Roucolle, ENAC)
- 106 Airline competition in transatlantic markets: Simulating the impacts of passenger class and freight
(Lynnette Dray, University College London; Khan Doyme, University College London; Yagmur Gok, University College London; Peizhi Li, University College London; Andreas Schafer, University College London)

14:00 – 15:30 M5-8 Air Transport Demand 2

Z410

Chair: **Mikio Takebayashi** | Kobe University

- 214 The impacts of exchange rate fluctuations on the international air transport

(Yulu He, The Hong Kong Polytechnic University; Wenliang Ma, Capital University of Economics and Business; Kun Wang, The Hong Kong Polytechnic University; Keke Fan, Beijing Volcano Engine Technology Co.)

- 295 Research on regional differences in overseas travel rates in Japan
(Takashi Miyazawa, Tokyo Denki University; Kazuyuki Takada, Tokyo Denki University)
- 193 The impact of Passengers' Choice Behavior on Demand: Incheon International Airport
(Se-Yeon Jung, Incheon International Airport Corporation; Hyojin Kim, Incheon International Airport Corporation)
- 74 Transport services for remote island areas: Revisit
(Mikio Takebayashi, Kobe University; Hiromichi Yamaguchi, Kanazawa University; Yuka Kataoka, Ehime University)

14:00 – 15:30 M5-9 Technology Application in Aviation

Z413

Chair: **Zhiyuan Shen** | Nanjing University of Aeronautics and Astronautics

- 271 Visualization of airport user behavior dynamics in Timor-Leste using non-contact sensing technology
(Yuki Minematsu, Kanazawa University; Makoto Fujiu, Kanazawa University; Yuma Morisaki, Kanazawa University; Yosuke Kon, Kanazawa University)
- 405 A cross-regional review of AI safety regulations in the commercial aviation industry
(Sohel Imroz, Embry-Riddle Aeronautical University)
- 236 A systematic literature review on AI, innovation, and digitalisation in airport management: Enhancing passenger experience and operational efficiency
(Carlo Riccardo Raggi, University of Genova)
- 379 From general to flight-specific: Evaluating and optimizing LLMs for multimodal civil aviation data
(Zhiyuan Shen, Nanjing University of Aeronautics and Astronautics; Zihan Yu, Nanjing University of Aeronautics and Astronautics; Yifan Xu, Nanjing University of Aeronautics and Astronautics)

15:30 – 16:00 Coffee Break

Venue: 2/F, Block Z

16:00 – 17:30 Paper Session VI

Venue: 2/F & 4/F, Block Z

16:00 – 17:30 M6-1 Unison Industry Session: Air Travel Demand Dynamics & Analysis Z409

This session provides a comprehensive view of factors influencing aviation demand across different market segments, geographic regions, and industry conditions. It offers both theoretical frameworks and practical applications for understanding demand dynamics in the aviation sector.

Chair: **Sharon Sarmiento** | Unison Consulting, Inc.

- 88 The heterogeneous effects of GDP growth on air passenger traffic under the "Belt and Road" initiative: An empirical analysis based on asian participating countries
(Bocheng Xu, Civil Aviation University of China; Guihong Zhao, Civil Aviation University of China)
- 235 Immigration stock and diplomatic relationship on post-COVID 19 recovery of air transport demand in Canada
(Yap Yin Choo, British Columbia Insutitute of Technology)

- 150 Modelling the effect of low-cost carriers on inbound tourism — Leisure travellers vs. business travellers
(Wenjing Xue, Sichuan University; Chuntao Wu, Sichuan University)
- 70 Passenger volatility in turbulent times: Global hubs vs. regional hubs vs. non-hubs
(Gabriel Bordeaux, University of Porto; Antonio Couto, University of Porto)

16:00 – 17:30 M6-2 Intermodal Operations & Modal Competition 2

Z204

Chair: **Shangrong Chen** | Tsinghua University

- 225 Air markets network design under high-speed railway development: Empirical evaluation of air travel demand affected by the new chinese high-speed rail lines opening in 2030
(Andrea Signori, Bergamo University; Xiaoqian Sun, Beihang University; Sebastian Birolini, Bergamo University)
- 166 Analysis of the effects of air-rail intermodal transport service on the performance of airline companies
(Zehui Tang, Inha University; Hun-Koo Ha, Inha University; Dohun Kim, Inha University)
- 250 Vertical integration and interindustry competition in supply chains: Case of recent railway deregulation
(Yixiao Wang, The Hong Kong Polytechnic University; Kun Wang, The Hong Kong Polytechnic University; Eric Pels, Vrije Universiteit; Jianhong Wu, Beijing Jiaotong University; Hongchang Li, Beijing Jiaotong University)
- 124 Balancing air and rail: Optimal transportation mix and the role of coopetition in successive markets
(Shangrong Chen, Tsinghua University; Bravo Sai, CEA/DES/I-Tésé, Université Paris Saclay; Malavolti Estelle, Fédération ENAC ISAE-SUPAERO ONERA, Université de Toulouse, Toulouse School of Economics)

16:00 – 17:30 M6-3 Sustainability in Air Transport 6

Z206

Chair: **Chetan Talwar** | King Abdullah Petroleum Studies and Research Center

- 211 An ANP-enhanced multi-criteria decision-making framework for driving sustainable aviation fuel (SAF) supply chain implementation
(Yu Deng, University of South Australia; Yahua Zhang, University of South Australia; Yuchao Xu, University of South Australia)
- 176 Optimal ownership models for sustainable aviation fuel blending facilities: A game-theoretic analysis
(Xiangru Wu, The Hong Kong Polytechnic University; Yan Liu, The Hong Kong Polytechnic University; Kun Wang, The Hong Kong Polytechnic University; Shiyuan Zheng, Shanghai Maritime University)
- 177 The impact of sustainable aviation fuel quota mandates on the optimal on-airport fuel facility ownership
(Hengfei Ma, The Hong Kong Polytechnic University; Changmin Jiang, The Hong Kong Polytechnic University; Siyi Xia, University of Electronic Science and Technology of China; Rong Hu, Chengdu University of Technology)
- 341 Optimal carbon strategies for Chinese airlines: Carbon trading and sustainable aviation fuel
(Yuechao Wang, Beijing Jiaotong University; Yanhua Li, Beijing Jiaotong University; Guangjian Ren, Beijing Jiaotong University)

16:00 – 17:30 M6-4 Airline Network Development 2

Z212

Chair: **Xinyuan Chen** | Nanjing University of Aeronautics and Astronautics

- 35 The layout of the three major alliances in the Asia-Pacific region
(Yu-Chun Chang, National Taiwan Ocean University; Ai-Chi Su, National Taiwan Ocean University)
- 300 Hub competition and demand modeling in long-haul aviation markets
(Nuno Antunes Ribeiro, Singapore University of Technology and Design; Mingmei Li, Singapore University of Technology and Design; Sebastian Birolini, University of Bergamo)
- 82 Route evolution, network performance and reorganization driving factors of China: 1958-2023
(Yan Li, Sichuan University; Chuntao Wu, Sichuan University)
- 109 Benders decomposition for solving airline network design problem
(Xinyuan Chen, Nanjing University of Aeronautics and Astronautics; Wenli Xie, Nanjing University of Aeronautics and Astronautics; Sebastian Birolini, University of Bergamo; Jianlin Jiang, Nanjing University of Aeronautics and Astronautics; Jiajin Lin, Nanjing University of Aeronautics and Astronautics)

16:00 – 17:30 M6-5 Airport Strategy & Management 2

Z405

Chair: **Viktoriia Ivannikova** | Dublin City University

- 161 Mapping SDG interlinkages in airport sustainability strategies: A co-occurrence, clustering, and network perspective
(Xibei Jia, University of Antwerp/University of Libson; Sven Buyle, University of Antwerp; Rosário Macário, Instituto Superior Técnico; Sascha Albers, University of Antwerp)
- 188 The impact of zero emissions strategies on airport management: The case of the UK.
(Muneki Yokomi, Kindai University)
- 249 A holistic approach to assessing and monitoring the integral sustainability of an airport as urban agglomeration hub
(Viktoriia Ivannikova, Dublin City University; Olena Sokolova, State University "Kyiv Aviation Institute"; Kostiantyn Cherednichenko, State University "Kyiv Aviation Institute")

16:00 – 17:30 M6-6 Airport Operations 6

Z406

Chair: **Tommy Cheung** | Swinburne University of Technology

- 90 Departure flight scheduling in multi-airport systems
(Huijuan Yang, Ecole Nationale de l'Aviation Civile; Daniel Delahaye, Ecole Nationale de l'Aviation Civile; Siriporn Yenpiem, King Mongkut's Institute of Technology Ladkrabang; John Frankie O'Connell, University of Surrey)
- 103 Using the graph vertex-coloring based parallel block coordinate descent method to solve the traffic assignment problem
(Kai Zhang, The Hong Kong Polytechnic University; Zhiyuan Liu, Southeast University; Xiaowen Fu, The Hong Kong Polytechnic University; Honggang Zhang, The Hong Kong Polytechnic University; Yicheng Zhang, Southeast University)
- 204 Optimizing aircraft flows and trajectories in the terminal airspace with environmental considerations
(Wayne Ng, Singapore University of Technology and Design; Nuno Ribeiro, Singapore University of Technology and Design; Sebastian Birolini, University of Bergamo)
- 328 HST-MAFlow: Hierarchical spatio-temporal deep learning model for multi-airport flow prediction

(Siyuan Feng, The Hong Kong Polytechnic University; Kai Sun, Monash University; Peibo Duan, Northeastern University; Ke Liu, University of California at Berkeley; Xi Cheng, Cornell University; Mark Hansen, University of California at Berkeley)

16:00 – 17:30 M6-7 Airline Strategy & Management 2

Z407

Chair: **Li Zou** | Embry-Riddle Aeronautical University

- 366 Environmental and welfare effects of airline fuel tankering strategy: Theory and empirical evidence
(Shuai Yue, The Hong Kong Polytechnic University; Chunan Wang, Beihang University; Weijun Liao, Hefei University of Technology; Qing Ji, China University of Petroleum (Beijing); Anming Zhang, University of British Columbia)
- 24 Lufthansa Technik's contribution to the development of the aeronautics industry in Portugal - A strategic hub for innovation and growth
(Daniel Pinto, Universidade Lusofona; Lucia Piedade, Universidade Lusofona)
- 130 Toward net-zero aviation: A comprehensive analysis of mandatory and non-mandatory environmental KPIs in Europe
(Luis Martín-Domingo, Dublin City University - DCU & Ozyegin University - OzU; Marina Efthymiou, Dublin City University - DCU; Miguel Mújica Mota, Amsterdam University of Applied Sciences)
- 228 Assessing the impacts of ownership structure, network efficiency, and fleet characteristics on the CO2 emission of U.S. regional airlines
(Li Zou, Embry-Riddle Aeronautical University; Dahai Liu, Embry-Riddle Aeronautical University; Archie Dong, Embry-Riddle Aeronautical University)

16:00 – 17:30 M6-8 Airline Operations 2

Z410

Chair: **Shinya Hanaoka** | Institute of Science Tokyo

- 27 Unravelling alternate airport patterns in China's flight data: A comprehensive analysis of diverted landings
(Bolong Zhou, The Hong Kong University of Science and Technology; Kashin Sugishita, Institute of Science Tokyo; Shinya Hanaoka, Institute of Science Tokyo; Hai Yang, The Hong Kong University of Science and Technology)
- 79 Predictability of air transport carriers' punctuality
(Thaís Rodrigues, Aeronautics Institute of Technology (ITA); Marcelo Guterres, Aeronautics Institute of Technology (ITA); Cláudio Alves, Aeronautics Institute of Technology (ITA); Mauro Caetano, Aeronautics Institute of Technology (ITA); Marcelo Vasconcellos, GRU Airport)
- 104 Flight schedule optimization by modelling flight delay propagation
(Myeonghyeon Kim, Korea Transport Institute; Dongwoon Kang, Korea Transport Institute)
- 258 Evaluating turnaround time impact on delay propagation in Japan's air routes using a cellular automaton-based simulation
(Tetsuo Ohyama, Tokyo University of Science; Takeru Aoki, Tokyo University of Science; Tomoaki Tatsukawa, Tokyo University of Science)

18:30 – 23:00 Gala Dinner & Award Presentations

Venue: Serenade Chinese Restaurant

Address: 1/F-2/F, Hong Kong Cultural Centre, 10 Salisbury Road, Tsim Sha Tsui

Awards to be presented: Best airports, best papers, JATRS best paper and reviewer

FRIDAY, 4th JULY – Paper Session and Conference Closing Session

08:30 – 12:30 Conference Registration

Venue: 2/F, Block Z

09:00 – 10:30 Paper Session VII

Venue: 2/F & 4/F, Block Z

09:00 – 10:30 M7-1 PolyU/AAE Special Session: Aviation Engineering Topics Z409

Chair: **Qinbiao Li** | The Hong Kong Polytechnic University

- 362 Characterization of laser-induced temperature distribution in layered material
(Ziyu Tao, The Hong Kong Polytechnic University; Nicolas Detalle, The Hong Kong Polytechnic University; Anthony Mannion, the Hong Kong Polytechnic University; Robert Voyle, The Hong Kong Polytechnic University; Zhihao Hou, The Hong Kong Polytechnic University)
- 370 Artificial intelligence for detection and classification of aluminum degradation in aviation maintenance
(Xi Jin, The Hong Kong Polytechnic University; Awais Akhtar, The Hong Kong Polytechnic University; Haoyuan Suo, The Hong Kong Polytechnic University; Racer K.H. Lam, The Hong Kong Polytechnic University; H.P. Tang, The Hong Kong Polytechnic University)
- 355 LLM-driven retrieval-augmented generation in aviation maintenance management
(Yijia Wu, The Hong Kong Polytechnic University; Yiwen Zhang, The Hong Kong Polytechnic University; Ying Xin, The Hong Kong Polytechnic University; Anthony Mannion, The Hong Kong Polytechnic University)
- 108 A knowledge-based RAG framework for enhancing regulatory interpretation and operational efficiency in low-altitude aviation
(Tiance Yang, The Hong Kong Polytechnic University)

09:00 – 10:30 M7-2 Intermodal Operations & Modal Competition 3 Z204

Chair: **Phutawan Ho Wongyai** | Massey University

- 89 Research on passenger-centric flight timetable optimization of air-rail intermodal transport
(Can Zou, Civil Aviation University of China; Guihong Zhao, Civil Aviation University of China)
- 98 Bridging air and rail services in co-modality transportation considering capacity uncertainties
(Xinyi Zhu, The Hong Kong Polytechnic University; Wei Liu, The Hong Kong Polytechnic University; Yuzhen Feng, The Hong Kong Polytechnic University)
- 190 Optimization of air & rail network considering different travel behaviors with season changes in demand
(Nguyen Manh Hung, Kanazawa University; Hiromichi Yamaguchi, Kanazawa University)
- 321 Ground-air collaborations for disaster responses with uncertainties
(Wenbo Sun, The University of Hong Kong; Lingxiao Wu, The Hong Kong Polytechnic University; Fangni Zhang, The University of Hong Kong)

09:00 – 10:30 M7-3 Sustainability in Air Transport 7 Z206

Chair: **Sena Kılıç** | Ozyegin University

- 199 Dose advanced aircraft achieve both profitability and emission reduction for the aviation industry?

- (Congcong Du, The Hong Kong Polytechnic University; Kam K.H. Ng, The Hong Kong Polytechnic University)
- 308 Exploring fleet renewal for net-zero aviation pathways by 2050
(Saif A Almutairi, King Abdullah Petroleum Studies and Research Center (KAPSARC); Saif A Almutairi, King Abdullah Petroleum Studies and Research Center (KAPSARC); Andres Felipe Guzman, King Abdullah Petroleum Studies and Research Center (KAPSARC))
- 310 Exploring point-to-point networks as a sustainable alternative for the Kingdom of Saudi Arabia
(Andres Felipe Guzman, King Abdullah Petroleum Studies and Research Center (KAPSARC); Freddy Navarro, Universidad Autónoma de Yucatán (UADY))
- 333 Examining airline sustainability strategies: A topic modeling and network analysis approach
(Sena Kılıç, Ozyegin University)

09:00 – 10:30 M7-4 Air Transport Policy & Regulation 3

Z212

Chair: **Sunder Raghavan** | Embry-Riddle Aeronautical University

- 174 Does short-haul ban always reduce emissions? When would the zero-emission aircraft be a better alternative?
(Yan Liu, The Hong Kong Polytechnic University; Kun Wang, The Hong Kong Polytechnic University; Xiangru Wu, The Hong Kong Polytechnic University; Yibin Xiao, University of Electronic Science and Technology of China; Xiaowen Fu, The Hong Kong Polytechnic University)
- 298 A study on the spillover effects of the EU Emissions Trading System on aviation emission reductions: Evidence from a spatial difference-in-differences model
(Mengting Liu, University of International Business and Economics; Qiang Wang, University of International Business and Economics; Changmin Jiang, The Hong Kong Polytechnic University)
- 160 Uptake of sustainable aviation fuels (SAFs) in the context of policies, mandates and industry targets: A comparison of potential production capacity across different world regions by 2030
(Chetan Talwar, King Abdullah Petroleum Studies and Research Center (KAPSARC); Andres Felipe Guzman, King Abdullah Petroleum Studies and Research Center (KAPSARC))
- 251 Counterproductive sustainable aviation finance and investment policies
(Sunder Raghavan, Embry-Riddle Aeronautical University)

09:00 – 10:30 M7-5 Airline & Airport Case Studies

Z405

Chair: **Benjamin Wu** | Lingnan University

- 53 International comparison of airline competition focusing on FSCs and LCCs dynamics: A market commonality and resource similarity analysis
(Jun Mizutani, Kobe University; Sinar Noe Corzo-Garcia, Kobe University)
- 136 Comparative analysis of multi-AOC airline strategies: Case studies on operational and financial impacts
(Lars-Michael Wendel, University of Antwerp; Sascha Albers, University of Antwerp; Wouter Dewulf, University of Antwerp)
- 237 The assessment of the effects of international sanctions and pandemic on Russian airports: The case of Pulkovo Airport
(Boris Lodiagin, HSE University; Carlos Rincon, Saint Petersburg State University)

- 406 The corporate motivation and policy incentives: A case study on building Hong Kong as a global sustainable aviation fuel (SAF) hub
(Benjamin Wu, Lingnan University; Mark Hansley Chua, Lingnan University; Maggie Williams, RMIT University)

09:00 – 10:30 M7-6 Airline strategy & management 3

Z406

Chair: **Martin Dresner** | University of Maryland

- 139 Market responses to Starlux airlines' entry: Cabin-class interactions, airfare substitution, and competitive adaptation
(Hsing-Pang Huang, National Yang Ming Chiao Tung University; Yi-Shih Chung, National Yang Ming Chiao Tung University)
- 226 Transferring connectivity evaluation of combination airlines at cargo hubs on the corridor from Southeast Asia to North America
(Ting-Yueh Huang, National Taiwan Ocean University; Hua-An Lu, National Taiwan Ocean University)
- 132 Enhancing airline profitability: The power of co-branded credit cards and frequent flyer programs
(Frankie O'Connell, University of Surrey; Nadine Itani, University of Surrey; David Warnock-Smith, University of Surrey)
- 141 Capacity disruption, safety concerns, and airline strategy: Assessing the impacts of the Boeing 737 Max grounding
(Martin Dresner, University of Maryland; Li Zou, Embry-Riddle Aeronautical University; Xiang Wan, The Ohio State University)

09:00 – 10:30 M7-7 Airline Network Development 3

Z407

Chair: **Yap Yin Choo** | British Columbia Institute of Technology

- 46 Estimating route relocation costs for profit optimizing airlines: Examples in a European network
(Boning Yang, University College London; Khan Doyme, University College London; Lynnette Dray, University College London; Andreas Schafer, University College London)
- 257 Does air route entry spread like contagious diseases?
(Yi-Lung Chen, University of New South Wales; Tay Koo, University of New South Wales; Kan-Lin Lu, University of New South Wales; Ruwen Deng, University of New South Wales; Zhenyu Zhang, University of New South Wales)
- 92 Unraveling policy effects on airline networks: A temporal exponential random graph framework for slot control and route entry restrictions
(Yue Hu, Ghent University; Dai Liang, Nanjing University of Finance and Economics; Fuellhart Kurt, Ghent University; Witlox Frank, Ghent University)

09:00 – 10:30 M7-8 Aviation Career and Equity

Z410

Chair: **Marina Efthymiou** | Dublin City University

- 183 Gender (in)equality in aviation academia in Australia: Progress, challenges, and future directions
(Bojana Spasojevic, Griffith University; Chrystal Zhang, RMIT; Nnenna Ike, University of South Australia)
- 389 Flying against the wind: Gender equity, diversity and inclusion in aviation
(Marina Efthymiou, Dublin City University)

10:30 – 11:00 Coffee Break

Venue: 2/F, Block Z

11:00 – 12:30 ATRS General Assembly & Closing Ceremony

Venue: Z209, Block Z

13:30 or later Technical Tours (Registration required)

Gathering time: Details to be provided at conference site

Gathering point: S Core

SUSTAINABLE AVIATION FUEL FORUM (HONG KONG)

(Separate location, registration required)

Date: Wednesday, 2nd July 2025

Time: 10:00 – 15:00

Venue: Silverbox Ballroom 4, Level 1, Hotel ICON, Tsim Sha Tsui East, Hong Kong

About the Forum:

The South Australian Sustainable Aviation Research Group, based at the University of South Australia is proud to host the Sustainable Aviation Fuel (SAF) Forum in Hong Kong as part of the 28th ATRS World Conference programme. This event is funded by the National Foundation for Australia-China Relations to support cooperation and engagement between the people of Australia and China.

In partnership with ATRS, Department of Industrial and Systems Engineering (ISE) at The Hong Kong Polytechnic University, Precision Analyser Company, and Australian Trade and Investment Commission (Austrade), the Forum aims to strengthen cross-border collaboration in low-carbon aviation.

With SAF emerging as a key solution to reducing aviation's environmental footprint, this gathering will provide a platform for dialogue, knowledge sharing, and policy insight among leaders in aviation, agriculture, logistics, government, and academia.

We are honoured to welcome guest speakers from Cathay Pacific, Team Global Express, and Hong Kong Airlines, thought leaders connected to the aviation sector, and representatives from Austrade, AustCham, and Hong Kong International Airport. Attendees will have opportunities for networking and exchanging ideas with these industry leaders and experts.

Forum Schedule:

<i>Time</i>	<i>Session</i>	<i>Details / Speakers</i>
10:00 – 10:30	Registration & Networking	Arrival and informal networking
10:30 – 12:00	Session 1: Industry practices and efforts on decarbonisation	1) Hamza Mazloum, Cathay Pacific – <i>Cathay Pacific's approach and prospects for SAF</i> 2) Heather Bone, Team Global Express – <i>Decarbonization of fleet in the logistics industry in Australia</i> 3) Li Xianyin, Hong Kong Airlines – <i>Precision emissions reduction and fuel efficiency in aviation</i> 4) Celia Lao, former GM China, AirAsia – <i>Low-cost carriers in the sustainable aviation transition</i>

12:00 – 12:30	Coffee & Networking Break	Refreshments served
		5) Samuel Wong, Vice President, PAC – <i>CORSIA and its implications for civil aviation in Asia Pacific</i>
12:30 – 13:45	Session 2: Policy frameworks supporting SAF production and adoption	6) Oli Madgett, FarmLab – <i>Agave and its potential as a sustainable SAF feedstock</i> 7) Yuchao Xu/Shane Zhang—Collaboration opportunities on SAF between Australia and China
13:45 – 14:00	Audience Q&A & Open Discussion	Interactive discussion with all attendees
14:00 – 15:00	Buffet Lunch & Networking	Lunch and networking

Please note:

Seating is limited, and early registration is encouraged to ensure your participation and also for catering purposes.



Journal of the Air Transport Research Society

Twelve JATRS reviews to keep you up-to-date!



Martin Dresner, Co-EIC



Xiaoqian Sun, Co-EIC



ATRS World Conference paper overview

Zhang, A., & Wan, Y. (2024). **The Air Transport Research Society World Conference: A data science-based literature review on the years 2014 to 2024.** Journal of the Air Transport Research Society, 100041.



Low-altitude economy policy challenges

Sun, X., Wang, S., Zhang, X., & Wandelt, S. (2025). **LAERACE: Taking the policy fast-track towards low-altitude economy.** Journal of the Air Transport Research Society, 100058.



Human operators

Papavasileiou, E. F., Papatheodorou, A., & Edmunds, J. (2025). **Human operators in air transport: A decade of systematic reviews.** Journal of the Air Transport Research Society, 4, 100059.



Accessibility with hidden passenger disabilities

Santos, I., Silva, S., Camarotto, J. A., & Vidotti, H. G. M. (2024). **Accessibility for passengers with hidden disabilities in air transport: A literature review.** Journal of the Air Transport Research Society, 100033.



Sustainable aviation fuels

Wandelt, S., Zhang, Y., & Sun, X. (2025). **Sustainable aviation fuels: A meta-review of surveys and key challenges.** Journal of the Air Transport Research Society, 100056.



Customer centricity

Soklaridis, S., Geske, A. M., & Kummer, S. (2024). **Key characteristics of perceived customer centricity in the passenger airline industry: A systematic literature review.** Journal of the Air Transport Research Society, 100031.



Airport self-service technologies

Chaiwan, C., Budd, L., & Ison, S. (2025). **A systematic literature review of passenger non-adoption of airport self-service technologies: Issues and future recommendations.** Journal of the Air Transport Research Society, 4, 100065.



Airport hub location problems

O'Kelly, M., Wandelt, S., & Sun, X. (2025) **Hub location problems: A meta review and ten disruptive research challenges.** Journal of the Air Transport Research Society, forthcoming.



Airport resilience

Hiney, N., Efthymiou, M., & Morgenroth, E. (2025). **Adapting to Uncertainty: Black Swans, VUCA Challenges and Airport Resilience Strategies.** Journal of the Air Transport Research Society, 100068.



Airline integrated scheduling

Xu, Y. (2024). **Perspectives on Modelling Airline Integrated Scheduling Problem: a Review on State-of-the-Art Methodologies.** Journal of the Air Transport Research Society, 100023.



Airline efficiency through AI

Geske, A. M., Herold, D. M., & Kummer, S. (2024). **Artificial intelligence as a driver of efficiency in air passenger transport: A systematic literature review and future research avenues.** Journal of the Air Transport Research Society, 100030.



Airline passenger satisfaction

Eshaghi, M. S., Afshardoost, M., Lohmann, G., & Moyle, B. D. (2024). **Drivers and outcomes of airline passenger satisfaction: A Meta-analysis.** Journal of the Air Transport Research Society, 3, 100034.



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DISCOVERING HONG KONG: BEYOND THE CONFERENCE WALLS

Welcome to Hong Kong! It is not only a global economic powerhouse, but also a world-renowned destination for travellers, celebrated for its breathtaking natural landscapes, its diverse and dynamic arts scene. During your stay at The Hong Kong Polytechnic University for the conference, we encourage you to take some time to experience the city's many wonders. Here are a few easily accessible recommendations offering a taste of Hong Kong's diverse charm:



Old Town Central

Explore the dynamic heart where Hong Kong's heritage, finance, and vibrant life converge

Explore beyond Hong Kong's iconic skyscrapers and discover Old Town Central, one of the city's oldest yet most lively areas. Stretching across the sloped streets of Central and Sheung Wan, this neighbourhood embodies a fusion of East and West cultures. Enjoy diverse culinary delights, award-winning bars, exciting nightlife and art happenings. Experience the blend of

tradition and modernity, where historic temples coexist with contemporary galleries, and cha chaan tengs are steps away from chic boutiques.

A century of elegance, a street full of stories, savour the charm of ancient and modern art

Hollywood Road

Built in 1844, Hollywood Road is one of Hong Kong's oldest paved roads. Once a prime trading hub for sailors and merchants selling antiques, it was crowned the world's second coolest street by Time Out for its rich history yet ever-evolving character. Today, this 1 km stretch between Central and Sheung Wan features art galleries, trendy cafes, chic bars and iconic heritage sites. Notable landmarks are the Man Mo Temple and Tai Kwun, both from the 19th century. Don't miss the longest outdoor covered escalator and vibrant murals.



A JOURNEY THROUGH ART AND TIME



M+ Museum

Dive into Asia's premier global museum of contemporary visual culture

Situated within the West Kowloon Cultural District, M+ stands as Asia's pioneering global museum dedicated to collecting, exhibiting, and interpreting visual art, design and architecture, moving image, and Hong Kong visual culture from the 20th and 21st centuries. Housed in a striking architectural masterpiece designed by Herzog & de Meuron, this institution

presents a distinct Asian perspective on global contemporary culture.

If you plan to visit the M+ Museum, we recommend that you book your tickets in advance through the following website:

<https://www.mplus.org.hk/sc>

Travelling through time to dialogue with ancient Chinese culture

Hong Kong Palace Museum

Located in the West Kowloon Cultural District, the Hong Kong Palace Museum comprises nine galleries and presents over 900 priceless treasures from the Palace Museum in Beijing. Here, visitors can marvel at an extraordinary array of priceless artefacts on long-term loan from the Forbidden City, including imperial paintings, calligraphy, ceramics, jade, and ceremonial objects, many of which are displayed outside Beijing for the very first time.



During the conference, the Hong Kong Museum of Art will organise the exhibition "Wonders of Imperial Carpets: Masterpieces from the Museum of Islamic Art, Doha".

If you plan to visit the Hong Kong Palace Museum, we recommend that you book your tickets in advance through the following website: <https://www.hkpm.org.hk>

WHEN NIGHT FALLS ON HONG KONG



Victoria Peak

Witness Hong Kong's
breathtaking skyline from the Peak

Located on Hong Kong Island, Victoria Peak is the island's highest point and offers arguably the most iconic panoramic views of Hong Kong's stunning skyline, Victoria Harbour, and the surrounding islands. The journey up on the steep Peak Tram is an experience in itself, leading to the Peak Tower and Peak Galleria where shops, restaurants, and the Sky

Terrace 428 await. Various walking trails also offer different perspectives. A visit just before sunset is highly recommended to witness the city's magical transition from day to a glittering nightscape.

If you plan to take the cable car to Victoria Peak, or visit the mountaintop attractions, we recommend that you book your tickets in advance through the following website:

<https://www.thepeak.com.hk/zh-hans/ticket-and-booking/purchase-ticket/peak-tram-sky-pass>

Immerse yourself in the lively buzz of a traditional Hong Kong night market at Temple Street

Temple Street

Temple Street is located in the Yau Ma Tei district of Kowloon and can be easily accessed from MTR Yau Ma Tei Station. It is named after the Tin Hau temple. The market truly comes alive after sunset, offering a quintessential local experience. Here, you can taste various delicious street food, especially from the iconic "dai pai dongs", and discover all kinds of novelties in the stalls. The sheer sensory overload—the sights, sounds, and smells—combined with the opportunity to bargain and savour authentic food, makes for an unforgettable evening.



CITY RHYTHMS: BY SEA AND LAND



Star Ferry

Sail through history: Experience the magic of Victoria Harbour on the iconic Star Ferry

As one of the oldest forms of transportation in Hong Kong, the Star Ferry has been faithfully carrying passengers across the harbour for more than a century. This short, incredibly scenic, and affordable journey offers unparalleled close-up views of the dynamic skylines on both sides of the harbour—a fantastic photo opportunity.

You can learn more about the Star Ferry in advance through the following links: <https://www.starferry.com.hk/sc/service>

Ding Ding! Hear the iconic bell and ride through Hong Kong's vibrant history, street by street

Hong Kong Tramways

The Hong Kong tram, affectionately known by locals as the “Ding Ding,” is a unique form of transportation found on the bustling streets of Hong Kong Island. A ride on a “Ding Ding” provides a close-up view of everyday street life, bustling markets, traditional stores nestled beneath towering skyscrapers, and the myriads of sights, sounds, and smells of Hong Kong.

You can learn more about the “Ding Ding” in advance through the links: <https://www.hktramways.com/en/schedules-fares>



We hope you enjoy exploring the vibrant and diverse city of Hong Kong! To discover even more hidden gems and plan your perfect itinerary, the Hong Kong Tourism Board's official website is your ultimate guide:

<https://www.discoverhongkong.com/eng/index.html>

Hong Kong Tourism Board



