



**Safe
Evacuation**

You are kindly invited to the public PhD defense of
Chenchen Xu

**“Passenger Behavior in Airplane Emergency Evacuations
From Time Perception to Exit Choice”**

Time:

Wednesday, 13 December 2023 at 17:00 (Brussels time)

Location:

Ghent University, Campus Sterre, Krijgslaan 281, 9000 Ghent,
Building S8, 2nd Floor, Lecture Room 2.4
Or follow the livestream via: <https://ap.lc/IFeKE>

After the defense, you are welcome to attend the reception.
Please confirm your in-person attendance before 10 December by:
Email: chenchen.xu@ugent.be or **WeChat:** Karine5200

Supervisors

Prof. dr. Frank Witlox

(Ghent University)

Prof. dr. Quan Shao

(Nanjing University of Aeronautics and Astronautics)

Summary

This dissertation thoroughly explores evacuees' micro-level decision-making, crucial in time-sensitive evacuations, focusing on passengers' exit choices and perceptions of evacuation times during aircraft emergencies. Employing a novel stated preference survey design with adoption time perception as a dependent variable, the study introduces the time perception research concept to evacuation studies. It establishes the feasibility of applying time perception variables to understand passengers' assessment of emergency severity. The dissertation contributes to methodology by incorporating time perception variables into discrete choice modeling for emergencies and extending hybrid choice models with non-linear effects of latent factors. Overall, it provides valuable insights into passengers' understanding of accident factors, behavioral intentions, evacuation preferences, evacuation time perception, and latent human factors in airplane evacuations. These findings hold significant implications for improving evacuation procedures during air accidents.



Examination committee

Prof. dr. Haosheng Huang

(Ghent University, Chair)

Prof. dr. Kurt Fuellhart

(Ghent University & Unison Consulting, Inc.)

Prof. dr. Giovanni Circella

(Ghent University)

Prof. dr. Ben Derudder

(Katholieke Universiteit Leuven)

Prof. dr. ir. Genserik L.L. Reniers

(Delft University of Technology)

About the author

Chenchen Xu (1993) obtained a bachelor's degree majoring in Airport Operation and Management (2016) and a master's degree in Airfield Operation and Risk Assessment (2019), both from the Nanjing University of Aeronautics and Astronautics, China. In September 2019, Chenchen started her doctoral training in Airplane Evacuation Human Behavior at the Social and Economic Geography Group of Ghent University. Her research interests involve evacuation behavior, discrete choice modeling, stated preference analysis, evacuation simulation, flight route planning, urban air mobility, etc. She published nine papers in Web-of-Science journals and was the first author in three. The China Scholarship Council and Ghent University Special Research Fund funded her doctoral research.