

## NOISE IMPACT AND CONTROL OF EVTOL

CHEN BAO \*

\* AVIC Aerodynamics Research of Institute  
No.2 Yiman street Harbin Heilongjiang Province China  
Cariachen@163.com

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### ABSTRACT

Cities are important application scenarios for eVTOL, and noise is a crucial factor in determining the environment-friendliness of eVTOL. Firstly, eVTOLs adopt typically a distributed propulsion layout, utilizing various combinations of multiple rotors and tiltrotors to realize flight in different states such as takeoff, transition, cruise and landing. The flow mechanism and noise generation mechanism are complex, and many sound sources pose issues with both external noise and cabin noise; Secondly, eVTOL take off and fly in cities, and the takeoff and landing points are close to residential and commercial areas. Noise of eVTOL does not undergo long-distance attenuation and directly affects the surrounding environment, bringing potential noise pollution. Overall, noise pollution in low altitude environments is one of key factors limiting the large-scale application of eVTOL.

This STS will conduct specialized academic exchanges on the numerical simulation methods of eVTOL noise sources and propagation characteristics, experimental verification methods, etc. We look forward to experts and scholars from universities, research institutions, and industries around the world, such as the European Union and China, sharing research results and exploring future technological developments.

### REFERENCES

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