

# The Aerodynamic Development of VOYAH Zhuiguang BEV Version<sup>⊖</sup>

Chu YongJin, Liu Kaihe, Xu Lin  
*VOYAH Automobile Technology Company*

**Abstract:** This article provides an overview of the aerodynamic development process of Voyah’s first sedan, zhuiguang bev version as an example. Firstly, the target is set through competitive analysis and from the vehicle range requirements. Secondly, the shape optimal design of the BEV is conducted to reduce the drag coefficient (Cd) value by CFD simulation and clay model wind tunnel test. Then, Automobile accessories is used to reduce the Cd value, which include assembling the active grille shutter (AGS) and aerodynamic rim and optimizing the bottom plate and wheel spoiler. Finally, through the wind tunnel test of the prototype car, to achieve the goal of wind resistance coefficient.

**Key words:** automotive aerodynamics, Cd, CFD simulation, clay model, shape optimal design, wind tunnel test

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