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Longitudinal Free Flight of a Model Insect Flyer at Low Reynolds Number

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Highlights

- First computational work to show stable longitudinal free flight of a model insect.
- Combine 3D NS solver with Newtonian dynamics of flyer and flight control algorithm.
- Results are in good agreement with published works in all key aspects of dynamics.
- Details of vortical wakes and its formation are presented.
- Our approach offers physical realism and may extend to complex manoeuvring flights.

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