# A SIMPLE ANALYTICAL REPRESENTATION OF THE AIRCRAFT WINGS: CONCAVE-CONVEX CASE

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In this work, we present a simplified representation of an aircraft wing in section and analytically evaluate the lift and drag forces in a laminar flow regime. The intrados and extrados wing profiles are convex surfaces defined by the equation $f(x)$, with $h$, $d$, and $g$ as design parameters to optimize for reinforcement learning applications.

$$f(x) = \frac{g}{x^2 + dx + h} \tag{1}$$

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