AER 336S: Problem 2

Please comment all functions and scripts and hand in with your assignment. All figures should have your name in the title and should have proper legends and labels.

Integrate the pressure distribution given on my web page to find the lift coefficient, the pitching moment coefficient (about the quarter-chord), and the drag coefficient for the Joukowsky airfoil. Use the two piecewise interpolants produced in question 1. In the case where the coordinates are mapped to an equispaced domain, perform the integration by dividing the airfoil surface into small intervals (use x_{int} given above; try smaller intervals as well) and apply both the compound trapezoidal and Simpson rules. In the other case, integrate the interpolant analytically.