Research project meeting summary: Trajectory Module for Launcher MDAO

Jorge L. Valderrama [1]

Dr. Annafederica Urbano [2]   Dr. Mathieu Balesdent [3]   Dr. Loïc Brevault [4]

[1]ISAE-SUPAERO, MSc. in Aerospace Engineering
[2]ISAE-SUPAERO, DCAS   [3]ONERA, DTIS   [4]ONERA, DTIS

December 9, 2020

Plan:

1 Review of previous work

2 Key points discussed

My doubt was: as A_e is a function of $\dot{m}$ and I calculate $\dot{m}$ as a function of I_{sp} and T. Does it matters if A_e is calculated based on values of I_{sp} and T at a certain atmospheric pressure?

We reviewed the equations and now it's clear to me that no matter which point is chosen to represent I_{sp} and T, $\dot{m}$ will be the same anyway.