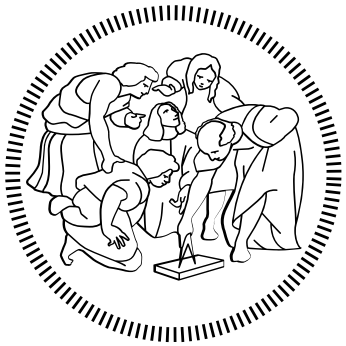

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Modeling of a blow-down propulsion system

Course of Space Propulsion
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Lockheed Martini Group

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Contents

Notation

SYM Description of symbol

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SYM Description of symbol[1]

1 Introduction and literature overview

1.1 Blow-down heritage

1.2 Additive manufacturing state of art

1.3 Analysis of losses

2 Modeling of propulsion system

Initial considerations (req + hyp / assumptions + constraints + criteria)
Flowchart

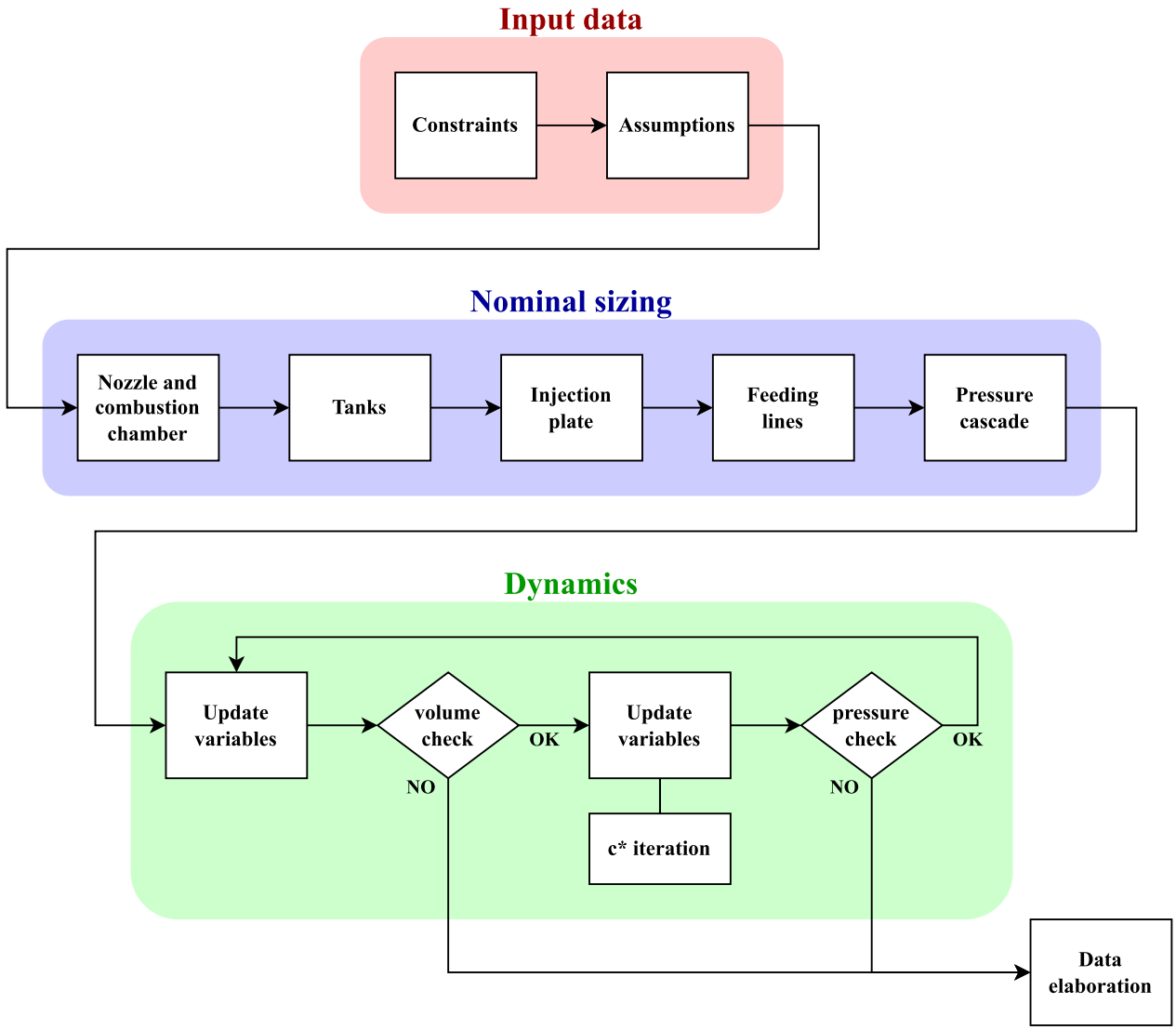

Figure 1: Flowchart of the simulation model

2.1 Tanks sizing

2.2 System dynamics

$p_{pr}^{(i+1)(j)}$

3 Results analysis

4 Nozzle losses

Bibliography

[1] Richard Grammier. *Overview of the Juno Mission to Jupiter*. Site: https://www.jpl.nasa.gov/missions/juno. 2006.