



UNIVERSITAT POLITÈCNICA DE CATALUNYA
BARCELONATECH
Escola Superior d'Enginyeries Industrial,
Aeroespacial i Audiovisual de Terrassa

ADVANCED STUDY FOR THE NUMERICAL RESOLUTION OF THE NAVIER-STOKES EQUATIONS USING THE FRACTIONAL STEP METHOD

Document:

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Autor/Autora:

Andreu Queralt McBride

Director/Directora - Codirector/Codirectora:

Asensi Oliva Llena – Carles David Pérez Segarra

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TREBALL DE FI D'ESTUDIS

Introduction and content

This document is a cost breakdown for the project, as well as the total budget. It is divided in three sections, hardware, work hours and energy consumption. All the software used was available without paying for a licence.

Hardware

The only hardware used for this project is a three year old personal computer, whose current value is:

Concept	Cost [€]
Personal Computer	200
Total	200

Work hours

The work hours dedicated to the project are divided into research, coding, post processing results and documentation. All have the same hourly cost.

Task	Hours	Cost [€/h]	Cost [€]
Research	70	20	1400
Coding	220	20	4400
Post Processing	60	20	1200
Documentation	50	20	1000
Total	400	20	8000

Energy

The energy consumption is calculated from the time working with the computer and plus additional time for simulation:

Activity	Consumption [kWh]	Cost [€/kWh]	Cost [€]
Active Work	24.7	0.1722	4.25
Simulations	6.5	0.1722	1.12
Total	31.2	0.1722	5.37

Total

Concept	Cost [€]
Hardware	200
Work hours	8000
Energy consumption	5.37
Total	2205.37