

TITLE OF PROJECT

MPhil to PhD Transfer Report

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Declaration

Declaration that the work you're doing is yours 'except where specifically cited'.

For person number 1 who's really important.

Also for people number 2 cause he's cool...

Acknowledgements

Acknowledgement number 1.

Acknowledgement number 2 ...

Abstract

This is where your abstract goes..

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List of Figures

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List of Symbols (draft)

Symbol	Description
S_aO_2	<code>\sao</code> — Arterial oxygen saturation (%). (no)
S_pO_2	<code>\spo</code> — Pulse oximeter oxygen saturation (%). (no)
PO_2	<code>\po</code> — Partial pressure of oxygen ($mmHg$). (no)
P_aO_2	<code>\pao</code> — Arterial partial pressure of oxygen ($mmHg$). (no)
P_tO_2	<code>\pto</code> — Tissue oxygen haemoglobin concentration ($mmHg$). (no)
Hb	<code>\deoxy</code> — Haemoglobin / deoxy-Haemoglobin (gL^{-1}). (no)
HbO_2	<code>\oxy</code> — Oxyhaemoglobin (gL^{-1}). (no)
R_{OS}	<code>\Ros</code> — Ratio of ratios. (no)
AC_R	<code>\ACr</code> — AC component of red. (no)
AC_{IR}	<code>\ACir</code> — AC component of infrared. (no)
DC_R	<code>\DCr</code> — DC component of red. (no)
DC_{IR}	<code>\DCir</code> — DC component of infrared. (no)
λ_R	<code>\R</code> — Wavelength of red (nm). (no)
λ_{IR}	<code>\IR</code> — Wavelength of infrared (nm). (no)
I_0	<code>\Io</code> — Original transmitted light intensity. (no)
I_s	<code>\Is</code> — Transmitted light intensity during systole. (no)
I_d	<code>\Id</code> — Transmitted light intensity during diastole. (no)
$[c]$	<code>\conc</code> — Concentration ($mmolL^{-1}$). (no)
$\epsilon(\lambda)$	<code>\exco</code> — Extinction coefficient of a given wavelength ($Lmmol^{-1}cm^{-1}$). (no)
d	<code>\opl</code> — Optical pathlenth (cm). (no)
op-amps	<code>\opamp</code> — Operational amplifiers. (no)
ZenPPG	<code>\zen</code> — Photoplethysmography instrumentation Unit. (no)
c	<code>\usspeed</code> — Speed of light ($2.99 \times 10^8 ms^{-1}$). (no)

Chapter 1

Introduction

Chapter 2

La ecuación de

Khokhlov–Zabolotskaya–Kuznetsov

$$\begin{aligned} \left(\frac{\partial^2}{\partial x_1^2} + \frac{\partial^2}{\partial y_1^2} \right) p + \frac{1}{c_0^2} \frac{\partial^2 p}{\partial \tau^2} - \frac{1}{c_0^2} \frac{\partial^2 p}{\partial \tau^2} - \frac{2}{c_0} \frac{\partial^2 p}{\partial z_1 \partial \tau} + \frac{\delta}{c_0^4} \frac{\partial^3 p}{\partial \tau^3} = - \frac{\beta}{\rho_0 c_0} \frac{\partial^2 p^2}{\partial \tau^2}, \\ - \frac{c_0}{2} \times \left[\left(\frac{\partial^2}{\partial x_1^2} + \frac{\partial^2}{\partial y_1^2} \right) p - \frac{2}{c_0} \frac{\partial^2 p}{\partial z_1 \partial \tau} + \frac{\delta}{c_0^4} \frac{\partial^3 p}{\partial \tau^3} \right] = - \frac{c_0}{2} \times \left[- \frac{\beta}{\rho_0 c_0} \frac{\partial^2 p^2}{\partial \tau^2} \right]. \end{aligned} \quad (2.1)$$

...

Chapter 3

Conclusiones

I was sick - sick unto death with that long agony...

- *The Pit and the Pendulum*-

Edgar Allan Poe

Bibliography