

# Europass Curriculum Vitae



## Personal information

Surname(s) / First name(s)

Address(es)

Email(s)

Nationality(-ies)

Date of birth

Gender

Current Position

Research interests

### Aleluia da Silva Reis, Lara

Fondazione Eni Enrico Mattei; Centro Euro-Mediterraneo per i Cambiamenti Climatici;  
Corso Magenta, 63; 20123 Milan, Italy

lara.aleluia@feem.it

Portuguese

06/10/1984

Female

Junior researcher

Atmospheric dispersion, climate change, environmental economics, energy policy, air pollution, integrated assessment and environmental statistics.

## Work experience

Dates

Position held

Main activities

Organization

November 2012 - April 2013

### R&D engineer

Air quality modelling and integrated assessment modelling.

Public Research Centre Henri Tudor.

Dates

Position held

Main activities

Organization

October 2008 - October 2012

### PhD student

PhD thesis title: "*Development and application of an AsYmptotic Level Transport Pollution Model for Luxembourg Energy and Air Quality Project*".

Implementation of the air quality model AUSTAL2000 for the *Luxembourg Energy Air Quality* model. Analysis and evaluation of the air quality modelled and monitored data. Development of a temporal and spatial emission allocation module.

Faculty of Science, Technology and Communication, of the University of Luxembourg and the Public Research Centre Henri Tudor.

Dates

Position held

Main activities

Organization

September 2010 - February 2011

### Guest PhD student

Development of a fast photochemical module for AUSTAL2000 model and an emission allocation module.

Laboratory of Atmospheric Physics of Aristotle University of Thessaloniki, Greece.

## Education and training

Dates

Title of qualification awarded

Principal subjects

Organization

Dates

October 2008 - October 2012

### Ph.D in engineering sciences.

Thesis title: "*Development and application of an AsYmptotic Level Transport Pollution Model for Luxembourg Energy and Air Quality Project*".

Faculty of Science, Technology and Communication, of the University of Luxembourg

From July 27th to August the 5th, 2010

Principal subjects	Alpbach 2010 summer school entitled "New space missions for understanding climate change". Team project awarded by the school Jury Chairman's prize.
Organization	Aeronautics and Space Agency of the Austrian Research Promotion Agency (FFG), co-sponsored by ESA.
Dates	September 2006 - June 2008
Title of qualification awarded	<b>Master in environmental engineering - Management and environmental systems.</b>
Principal subjects	Master thesis on "Statistical models for ozone prediction in Lisbon and Tagus valley region.". Regression trees and multiple linear regression models.
Organization	Faculty of Science and Technology of The New University of Lisbon, Portugal.
Level in national classification	Master course with the grade of 16 (national classification, 0-20); Master thesis with the grade of 17.
Dates	February 2006 - August 2006
Title of qualification awarded	<b>ERASMUS program.</b>
Principal subjects	Practical work on analysis of the behaviour of chlorine in combustion processes. Extra ECTS for the accomplishment of Climate change course.
Organization	Technical University of Dresden.
Dates	September 2002 - June 2006
Title of qualification awarded	<b>Degree in Environmental Engineering</b> ; Hydraulics II, as extra-curricular course.
Organization	Faculty of Science and Technology of The New University of Lisbon, Portugal.
Level in national classification	Degree in environmental engineering, the grade of 15 (national classification, 0-20).

## Personal skills and competences

Mother tongue  
Other language(s)  
*Self-assessment*  
*European level<sup>(\*)</sup>*

**English**

**French**

**Spanish**

**German**

**Italian**

**Greek**

Portuguese

Self assessment:

Understanding				Speaking				Writing	
Listening		Reading		Spoken interaction		Spoken production			
C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user
C2	Proficient user	C2	Proficient user	C1	Proficient user	C1	Proficient user	B2	Independent user
C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Proficient user	A1	Basic user
A1	Basic user	A2	Basic user	A2	Basic user	A2	Basic user	A2	Basic user
B1	Independent user	B1	Independent user	A2	Basic user	A2	Basic user	A2	Basic user
A1	Basic user	A1	Basic user	A1	Basic user	A1	Basic user	A1	Basic user

<sup>(\*)</sup> Common European Framework of Reference (CEF) level

Modelling skills

Air quality model: AUSTAL2000, OZIPR; CFD model: OpenFOAM, Statistical software: R, SPSS, Systat; GIS: Idrisi, GRASS, QuantumGIS.

Programing skills

R, C, Matlab, Python, bash script.

Computer skills

LateX, tikz; Graphics software: Macromedia Flash, Google sketchup, DIA; OS: Windows, Linux; Editors: Emacs, vim, IBM eclipse.

Aleluia Reis, L.; Melas, D.; Peters, B. and Zachary, D. S. Developing a fast photochemical calculator for an integrated assessment model, *International Journal of Environment and Pollution*, 2012, Accepted

Zachary, D. S.; Drouet, L.; Leopold, U. and Aleluia Reis, L. Trade-offs between energy cost and health impact in a regional coupled energy-air quality model: the LEAQ model, *Environ. Res. Lett.*, 2011, 6

## Conference papers

Aleluia Reis, L.; Zachary, D. S.; Peters, B. and Drouet, L. A fast air quality model using Look-up tables to address integrated environmental assessment model requirements. *International Environmental Modelling and Software Society (iEMSs) 2012 International Congress on Environmental Modelling and Software Managing Resources of a Limited Planet, Sixth Biennial Meeting, 2012* (peer-reviewed)

Drouet, L.; Aleluia Reis, L.; Leopold, U. and D. Zachary. *Implementing the Oracle-Based Optimisation for an Integrated Assessment Model for Air Pollution: the Luxembourg Energy Air Quality model. International Environmental Modelling and Software Society (iEMSs) 2012 International Congress on Environmental Modelling and Software Managing Resources of a Limited Planet, Sixth Biennial Meeting, 2012* (peer-reviewed)

Reis, L. A.; Zachary, D.; Leopold, U. and Peters, B. C.A. Brebbia, V. P. (Ed.) Selecting a fast air quality calculator for an optimization meta-model, *Air Pollution XVII, WIT Press, 2009*