

# CURRICULUM VITAE

## PERSONAL DETAILS:

Name	Arno Mayrhofer
Academic Title	Mag. rer. nat.
Born	13/08/1986
Nationality	Austria
Home Address	Montfortstrasse 25, 6922 Wolfurt, Austria
Current Address	102, Rye Bank Road, Manchester, M160EY, United Kingdom
Phone Number	0044-7931-871957
Email	arnom@amconception.de
Current Position	PhD Student at the University of Manchester

## EDUCATION:

2010 - to date	Graduate study of Civil Engineering at the University of Manchester PhD Thesis: Turbulence Modelling with Smoothed Particle Hydrodynamics
2006 - 2010	Undergraduate study of Mathematics at the University of Vienna 28.02.2008: First diploma examination passed with honours 07.09.2010: Diploma with honours
2008 - 2009	Erasmus year for undergraduate study of Mathematics at the University College Cork, Ireland
2005 - 2006	Undergraduate study of Physics and Mathematics at the University of Vienna
2000 - 2004	Secondary school in Lauterach Final examination passed with honours
1996 - 2000	Primary school in Wolfurt
1992 - 1996	Elementary school in Wolfurt

## ACADEMIC ACTIVITIES:

Thesis	Final Year Project (University College Cork): SPHysics in Theory and Practice (available at <a href="http://sci.amconception.de">http://sci.amconception.de</a> ) Diploma Thesis (University of Vienna): Numerical Methods for Parabolic Differential Equations
--------	--

- Paper M. Jablonska, A. Mayrhofer and J. Gleeson. Stochastic Simulation of Uplift process for the Irish Electricity Market. Mathematics-in-Industry Case Studies.  
A. Mayrhofer, M. Gomez-Gesteira, A.J.C. Crespo and B. Rogers. Advanced Pre-Processing for SPHysics. Proceedings of the 5th SPHERIC workshop.
- Contributions 70th European Study Group with Industry
- The effect of Mechanical Loading on the Frequency of an Oscillator Circuit
  - Uplift Quadratic Program in Irish Electricity Price Setting
- SPHysics - Open-Source SPH Free-surface Flow Solver
- MyGeo, a 2D pre-processing tool (available at <http://sci.amconception.de>)
  - Pre-Processing for SPHysics since Version 2.2

#### EMPLOYMENT:

- 2010 Research Assistant at the University of Vienna
- Autumn 2009 Invited research stays at the University of Vigo and Manchester to implement an advanced 3D pre-processing tool for SPHysics
- Summer 2009 Internship at MACSI, University of Limerick, Ireland working on the stochastic simulation of noisy oscillators and modelling of financial time series
- Summer 2008 Numerical simulation of laser rangefinders in Mathcad and Geometric calculations for navigation systems for Vectronix AG
- Summer 2007 Numerical simulation of VECSLs for signal transfer in C++ for Photeon Technologies
- 2004 - 2005 Flugelhorn player at the military music academy in Vorarlberg
- Summer 2004 Evaluation and Setup of a bug tracking system for inet-logistics (still in use)
- Summer 2003 Volunteer at the Institute of Handling Devices and Robotics (Technical University of Vienna), Software development for Multi-Agent-Systems in C++

#### SKILLS:

- Programming C, C++, Fortran, Matlab, Mathematica, Python, Mathcad, Java
- Visualization Blender, ParaView
- Typesetting  $\LaTeX$ , Asymptote
- Web development E.g. [www.amconception.de](http://www.amconception.de), [www.keithfranke.com](http://www.keithfranke.com)
- Photography Traditional film photography and darkroom techniques
- Volleyball UMVC (Manchester), UCC Volleyball Club, VCW (Wolfurt)



Arno Mayrhofer  
Manchester, 01.11.2010