

# Curriculum Vitae (October 2007)

Kristiaan Pelckmans,  
Born: 03-11-1978 in Turnhout, Belgium.  
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## I. Education

1. Secondary School, Option Math & Latin: 1991-1996, Turnhout, Belgium.
2. Master in Computer Science, 1996-2000, CS, K.U.Leuven, Belgium.
3. Ph.D. In Engineering, ESAT, K.U.Leuven, 2000-2005.  
ESAT – SCD / sista, Kasteelpark 10, 3001 Leuven (Heverlee), Belgium  
Promotors: J. Suykens and B. De Moor.
4. Postdoctoral Researcher, ESAT, K.U.Leuven, 2005-2007  
ESAT – SCD / sista, Kasteelpark 10, 3001 Leuven (Heverlee), Belgium
5. FWO Postdoctoral Researcher 2007-2010  
Salary (annual): 32.425,95 EURO, or 21.690,63 GBP.
6. Affiliate academic at UCL, London, UK in the CSML group with professor J. Shawe-Taylor (Oct 2007 - July 2008)  
Duties: research, teaching assistant, student support and sustainment of the interdisciplinary group in general.

## II. Expertise

### I. *Research expertise:*

1. Ph.D. In engineering: 'Primal-dual Kernel Machines', on the applications of convex optimization techniques for the design of new kernel machines.
2. Research in Nonlinear system Identification (on identification of Wiener- and Hammerstein systems).
3. Publications (12 Journals, 18 Conference Publications), Conferences, Workshops, Industrial Projects and Interaction in interdisciplinary Research Group (Center of excellence: Optimization and Engineering, FWO projects, IWT projects, GBO, SBO).
4. Visit (3 Months), FhG, IPSI, Darmstadt, Germany (U. von Luxburg and prof. T. Hofmann) and MPI Tübingen (prof. B. Schölkoph) , grant FWO, Belgium, 2005.
5. Short visit Southampton, ISIS, prof. J. Shawe-Taylor, visiting grant from the PASCAL Network of Excellence, 2006
6. Visit to CSML at UCL, London, UK, prof. J. Shawe-Taylor, 2007 – 2008.

### II. *Teaching and Student Support Expertise:*

1. Teaching Assistant for 'Support Vector Machines: Methods and Applications', master of AI 2002-2003-2004.
2. Teaching Assistant for 'System Identification', 2006, Master in Mathematical Engineering

Techniques.

3. Teaching Assistant for 'Systems Theory', 2007, 2e Bach. In Engineering.
4. Daily leader (informally) of 2 Ph.D. Students: P. Karsmaker, from 2005 on, 'Support Vector Machines in Speech Recognition' and M. Signoretto (Kernel Methods).
5. Assisting in the Ph.D. Research of N. Pochet ('Microarray Data Analysis Using SVMs and Kernel Machines'), T. Van Herpe ('The Development of a Control System to Normalize Glycemia of Critically Ill Patients'), S. Van Vooren ('Linking Microarray Data Analysis with Text information'), and V. Van Belle ('On Nonlinear Survival Analysis in Medical Analysis').
6. Daily leader of 7 master students (2 master in engineering, 5 master of AI): 2002-2005.

### *III. Project experience:*

1. Soft4s: 'Nonlinear Soft-sensors for Control Purposes in Chemical Industry' (partners BASF, IPCOS), 2000-2003.
2. Modeling of the Belgian electricity consumption in cooperation with the Belgian electricity company, (in cooperation with ELIA): 2002-2004.

### *IV. Presentation on International Conferences:*

**2002** (ICANN, NIPS), **2003** (NNSP, SYSID), **2004** (ESANN, IJCNN, MTNS, NOLCOS, ICONIP), **2005** (IJCNN, ICANN, CDC, NOLTA, NIPS), **2006** (SYSID, NOLTA, MLSP, PMSB, MLGNIPS).

### *V. Reviewer:*

1. Journals: JMLR, Machine Learning, IEEE-TNN, IEEE-TCAS-II, IEEE-TSP, Automatica, Neurocomputing
2. Conferences: NIPS, AISTAT, CDC, ACC, ICANN, IJCNN

### *VI. Programming experience:*

1. Linux – native.
2. Matlab/C - fluently: publication of toolbox LS-SVMLab.
3. Mathematica, SAS, R - experience.
4. Java/C++ - experience.
5. HTML/ perl – experience.

### *VII. Member Professional Organization:*

PASCAL (Pattern Analysis, Statistical Modeling and Computational Learning)  
INNS (International Neural Network Society)

## **III. Background**

I would describe my personality as creative, and passionate about research.

Personal interest include

- Amateur astronomer (URANIA.be, Hove (Antwerp), Belgium)
- Photography (Hasselblad), playing music (guitar)