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# Luís Torgo

## *Curriculum Vitae*

### Education

- 2000 Ph.D. in Computer Science, Faculty of Sciences, University of Porto
- 1994 Summer School on Artificial Intelligence for Multi-Agent Systems: methodologies and applications , Troia, Portugal
- 1992 Pedagogical and Scientific abilities examinations at the Faculty of Economics of the University of Porto (equivalent to M.Sc. by Portuguese regulations)
- 1991 Summer School on Advanced Topics in Artificial Intelligence, Czech Republic
- 1989 Degree in Systems and Informatics Engineering from the University of Minho, Portugal

### Professional Experience

#### *Teaching*

- 2009 – ... Associate Professor of the Department of Computer Science of the Faculty of Sciences of the University of Porto
- 2000 – 2009 Assistant Professor of the Faculty of Economics of the University of Porto
- 1993 – 2000 Assistant of the Faculty of Economics of the University of Porto

#### *Research*

- 2007 – ... Researcher of the Laboratory of Artificial Intelligence and Data Analysis belonging to the INESC Porto Associated Lab
- 1989 – 2007 Researcher of the Laboratory of Artificial Intelligence and Computer Science (LIACC) of the University of Porto

### Pedagogical Activities

#### *Faculty Subjects*

- 2009/10 – ... Knowledge Discovery from Databases - PhD program on Informatics (MAP-I), Universities of Aveiro, Braga and Porto
- 2009/10 – ... Introduction to Programming - Offered to several degree programs of the Faculty of Sciences, University of Porto
- 2008/09 – ... Analytical Methods of Fraud Detection - Post-graduation course on Fraud Management, Faculty of Economics - University of Porto

## Pedagogical Activities (continued)

2008/09 – ...	Data Structures - Degree in Computer Science, Faculty of Sciences, University of Porto
2007/08 – 2008/09	Advanced Topics in Data Mining and Logic Programming - PhD program on Informatics (MAP-I), Universities of Aveiro, Braga and Porto
2006/07	Databases - PhD program on Computacional Biology, Institute Gulbenkian of Science
2004/05 – ...	Time Series Analysis - Masters on New Media and E-science, Josef Stefan International Postgraduate School, Ljubljana, Slovenia
2004/05 – 2008/09	Applied Informatics - Degree in Economics, Faculty of Economics, University of Porto
2004/05 – 2006/07	Web Mining - Masters on Artificial Intelligence and Intelligent Systems, Faculties of Economics and Engineering, University of Porto
2004/05 – 2006/07	Databases and Programming - Masters on Artificial Intelligence and Intelligent Systems, Faculties of Economics and Engineering, University of Porto
2004/05 – 2006/07	Data Mining I - Masters on Artificial Intelligence and Intelligent Systems, Faculties of Economics and Engineering, University of Porto
2002/03 – 2004/05	Web Mining - Masters on Artificial Intelligence, Faculties of Sciences, Economics and Engineering, University of Porto
2000/01 – 2008/09	Data Mining I - Masters on Data Analysis and Decision Support Systems, Faculty of Economics, University of Porto
2000/01 – 2008/09	Databases and Programming - Masters on Data Analysis and Decision Support Systems, Faculty of Economics, University of Porto and
2000/01 – 2008/09	Artificial Intelligence Methodologies - Masters on Artificial Intelligence, Faculties of Sciences, Economics and Engineering, University of Porto
1990/91- 2004/05	Informatics - Degree in Economics, Faculty of Economics, University of Porto
1989 – 2007	Complements of Artificial Intelligence - Degree in Computer Science, Faculty of Sciences, University of Porto
	<i>Tutorials</i>
2006	Using R for Data Mining and Scientific Discovery - 9th International Conference on Discovery Science (DS-2006), Barcelona, Spain
	<i>Short Courses</i>
2007	An introduction to the R environment (30h) - Caixa Economica Federal ( <a href="http://www.caixa.gov.br/">http://www.caixa.gov.br/</a> ), Brasilia, Brazil
2007	An Introduction to R (5h) - University of Beira Interior, Covilha, Portugal
2005	Data Mining with R (6h) - ACAI Summer School on Knowledge Discovery
2004	An Autonomous Trading System - International Summer School on Data Analysis, Lisbon, Portugal
2003	Time Series Analysis - International Summer School on Neural Networks (NN'03), Porto, Portugal
2002	Financial Applications - International Summer School on Neural Networks (NN'02), Porto, Portugal

## Pedagogical Activities (continued)

- 2002 Time Series Analysis - International Summer School on Neural Networks (NN'02), Porto, Portugal
- 1998 Introduction to Regression Methods useful in Data Mining - International Summer School on Knowledge Discovery and Data Mining: Methods and Applications, Caminha, Portugal
- 1994 Applications of Propositional Learning Systems: examples and techniques - University of Sao Paulo, Brazil
- 1994 Numerical Classification and Prediction - International Workshop on Artificial Intelligence Techniques, Czech Republic
- Publications*
- 2009 *A Linguagem R - programação para a análise de dados* - Escolar Editora, [http://livraria.escolareditora.com/livro.php?livros\\_id=146334](http://livraria.escolareditora.com/livro.php?livros_id=146334)
- 2006 *Introdução à Programação em R* - Document contributed to the R project (<http://www.r-project.org>), freely available at <http://cran.r-project.org/other-docs.html>
- 2006 *Introdução à Programação em R - Databases and Programming, Masters on Data Analysis and Decision Support Systems, Faculty of Economics, University of Porto*
- 2006 *Introdução aos Sistemas de Gestão de Bases de Dados - Databases and Programming, Masters on Data Analysis and Decision Support Systems, Faculty of Economics, University of Porto*
- 2003 *Programação, Análise de Dados e Sistemas de Apoio à Decisão usando o R* - Informatics and Applied Informatics, degrees in Economics and Management, Faculty of Economics, University of Porto
- 1997 *Windows 95, uma breve introdução* - Informatics, degrees in Economics and Management, Faculty of Economics, University of Porto

## Scientific Activities

### *Main Interests*

Artificial Intelligence

Machine Learning

Knowledge Discovery in Databases and Data Mining

Propositional Learning methods

Classification and Regression methods

Tree-based models

Time Series Prediction associated with Complex Dynamic Systems.

Financial applications of machine learning methods

Ecological applications of machine learning methods

Spatio-temporal Data Mining

Prediction of Rare and Extreme Events.

## Scientific Activities (continued)

Deviation Detection in Time Series.

Fraud Detection.

### *Prizes*

- 2008 Sabbatical scholarship for a 6 month at the Department of Computer Science of the University of Waikato, Hamilton, New Zealand, by the Portuguese Science Foundation (FCT)
- 2004 Sabbatical scholarship for a 6 month stay at Stern School of Business, NY, USA, by the Portuguese Science Foundation (FCT)
- 2008 Runner-up winner at the 3rd International Competition “Protecting rivers and streams by monitoring chemical concentrations and algae communities” , organized by ERUDIT in conjunction with COIL, the cluster of four European Research Networks (ERUDIT, EvoNet, MLNet and NeuroNet)

### *Research Projects*

- *Project Coordination* -

- 2008 – 2011 MORWAQ, Monitoring and Predicting Water Quality Parameters (PTDC/EIA/68489/2006) - National Science Foundation (FCT)
- 2008 – 2011 oRANKI, Resource-bounded Outlier Detection (PTDC/EIA/68322/2006) - National Science Foundation (FCT)
- 2008 Exploratory Analysis of *Sonae Distribuição* Employees Survey (2008) - *MBA Consultores* (private funding)
- 2007 – 2008 Monitoring water quality parameters - *Águas do Douro e Paiva, SA* (private funding)
- 2004–2006 MODAL, Models for Predicting Algae Blooms in River Douro (POSI/2000/SRI/40949) - National Science Foundation (FCT)
- 2005 Exploratory Analysis of *Sonae Distribuição* Employees Survey (2005) - *MBA Consultores* (private funding)
- 2003 – 2004 Development of a System for Automatic Intraday Trading in Stock Markets - private funding
- *Project Participation* -
- 2008 – 2011 Rank!, Development of methods for predicting item scheduling (PTDC/EIA/81178/2006) - National Science Foundation (FCT)
- 2000 – 2005 Sol-Eu-Net (IST-1999-11495) - European Community
- 2000 – 2001 Tsam, Knowledge extraction from financial time series for risk management (POSI/SRI/34329/99) - National Science Foundation (FCT)
- 1998 – 2002 METAL, A Meta-Learning Assistant for Providing User Support in Machine Learning and Data Mining (ESPRIT 26.357) - European Community
- 1997 – 2000 ECO, Knowledge Extraction from Databases (Praxis XXI) - National Science Foundation (FCT)
- 1991 – 1994 Statlog (Esprit Project 5170) - European Community
- 1989 – 1992 ECOLES (Esprit II 3059) - European Community

## Scientific Activities (continued)

### *Thesis Supervision*

#### *- Ph.D Theses -*

- 2009 – ... Orlando Ohashi - “Monitoring and Predicting Anomalies in Sensor Network Data”, MAP-I Doctoral Program in Computer Science, Universities of Aveiro, Minho and Porto
- 2008 – ... Brett Drury - “Text Mining System for Predicting Market Response to News”, (co-supervisor: José João Almeida), MAP-I Doctoral Program in Computer Science, Universities of Aveiro, Minho and Porto
- 2005 – ... Rita Ribeiro - “Modelling of Rare Cases”, (co-supervisor: Joaquim Pinto da Costa), Ph.D on Computer Science, Faculty of Sciences, University of Porto.
- 1997-2001 Pedro Almeida - “Intelligent Data Analysis for Financial Time Series Forecasting”, Ph.D. on Informatics, University of Beira Interior

#### *- MSc. Theses -*

- 2006 Jorge Barbosa - “The Use of Multiple Models to Detect Regime Changes in Financial Time Series”, Masters on Data Analysis and Decision Support, Faculty of Economics, University of Porto
- 2005 Joana Marques - “Efficiency Issues on Regression Trees”, Masters on Artificial Intelligence and Computing, Faculties of Sciences, Economics and Engineering, University of Porto
- 2005 Clara Gonçalves - “Regression Approaches using Clustering” (supervisor: Joaquim Pinto da Costa), Masters in Statistics, Faculty of Sciences, University of Porto
- 2004 Rita Ribeiro - “Models for Predicting Rare Events”, Masters on Artificial Intelligence and Computing, Faculties of Sciences, Economics and Engineering, University of Porto
- 2002 Mario Oldemiro Fernandes - “Artificial Intelligence techniques Applied to Financial Time Series Forecasting”, Masters on Data Analysis and Decision Support Systems, Faculty of Economics, University of Porto
- 2002 Ana Silva - “Information Exrtaction from Reports of Non-financial Portuguese Companies” (supervisor: Alipio Jorge), Masters on Data Analysis and Decision Support Systems, Faculty of Economics, University of Porto
- 2001 Silvia Amorim - “The choice of the number of clusters in the K means method” (supervisor: Joaquim Pinto da Costa), Masters on Statistics, Faculty of Sciences, University of Porto
- 2001 Cesar Rocha - “The Recursive Least Squares Algorithm for Local Regression” (co-supervisor: Joaquim Pinto da Costa), Masters on Statistics, Faculty of Sciences, University of Porto

### *Publications*

#### *- Books -*

- 2010 (to appear) L. Torgo  
Data Mining with R, learning by case studies  
CRC Press
- 2009 L. Torgo  
A Linguagem R - programação para a análise de dados  
Escolar Editora, ISBN 978-972-592-246-0

#### *- Book Chapters -*

## Scientific Activities (continued)

- 2009 (to appear) L. Torgo and C. Soares:  
Resource-bounded Outlier Detection using Clustering Methods
- 2003 P. Flach, H. Blockeel, T. Gartner, M Grobelnik, B. Kavsek, M. Kejkula, D. Krzywania, N. Lavrac, P. Ljubic, D. Mladenic, S. Moyle, S. Raeymaekers, J. Rauch, S. Rawles, R. Ribeiro, G. Sclep, J. Struyf, L. Todorovski, L. Torgo, D. Wettschereck, and S. Wu.  
*On the road to knowledge: mining 21 years of UK traffic accident reports*, chapter 12 of Data Mining and Decision Support, Integration and Collaboration, D. Mladenic et. al. (eds.).  
Morgan Kaufmann, ISBN 1-4020-7388-7
- Book Editions -
- 2005 J. Gama, R. Camacho, P. Brazdil, A. Jorge, and L. Torgo, editors.  
*Machine Learning: ECML 2005*.  
Number 3720 in LNAI, Springer, ISBN 3-540-29243-8, ISSN 0302-9743
- 2005 A. Jorge, L. Torgo, P. Brazdil, R. Camacho, and J. Gama, editors.  
*Knowledge Discovery in Databases: PKDD 2005*.  
Number 3721 in LNAI, Springer, ISBN 3-540-29244-6, ISSN 0302-9743
- Journals -
- 2008 R. Ribeiro and L. Torgo.  
A Comparative Study on Predicting Algae Blooms in Douro River, Portugal.  
*Ecological Modelling*, 212(1-2):86–91, Elsevier
- 2006 A. Silva, A. Jorge, and L. Torgo.  
Design of an end-to-end method to extract information from tables.  
*International Journal on Document Analysis and Recognition*, 8(2-3):144–171, Springer
- 2003 L. Torgo and J.P. Costa.  
Clustered partial linear regression.  
*Machine Learning*, 50(3):303–319, Springer
- 2000 L. Torgo.  
Thesis: Inductive learning to tree-based regression models.  
*AI Communications*, 13(2):137–138, IOS Press
- 1997 L. Torgo and J. Gama.  
Regression using classification algorithms.  
*Intelligent Data Analysis*, 1(4), IOS Press
- International Conferences -
- 2009 L. Torgo and R. Ribeiro.  
Precision and Recall for Regression  
In Proceedings of the 12th International Conference on Discovery Science (DS'2009), Springer
- 2009 L. Torgo and W. Pereira and C. Soares.  
Detecting Errors in Foreign Trade Transactions: Dealing with Insufficient Data  
In 14th Portuguese Conference on Artificial Intelligence, EPIA 2009, Lopes, L. et. al (eds.). LNAI - 5816, Springer

## Scientific Activities (continued)

- 2007 L. Torgo.  
Resource-bounded Fraud Detection  
In J. Neves et. al., editors, *Progress in Artificial Intelligence, 13th Portuguese Conference on Artificial Intelligence, EPIA 2007*, Number 4874 in LNAI, Springer
- 2007 L. Torgo and R. Ribeiro.  
Utility-based Regression  
In J. Kok et. al., editors, *Knowledge Discovery in Databases: PKDD 2007, 11th European Conference on Principles and Practice of Knowledge Discovery in Databases*, Number 4702 in LNAI, Springer
- 2006 R. Ribeiro and L. Torgo.  
Rule-based prediction of rare extreme values.  
In *Proceedings of the 9th International Conference on Discovery Science (DS'2006)*, Number 4265 in LNAI. Springer
- 2006 L. Torgo and R. Ribeiro.  
Predicting rare extreme values.  
In W. Ng, editor, *Proceedings of the 10th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD'2006)*, Number 3918 in LNAI, Springer
- 2005 L. Torgo and J. Marques.  
Adapting peepholing to regression trees.  
In *Proceedings of the 12th EPIA*, Number 3808 in LNAI, Springer
- 2005 L. Torgo.  
Regression Error Characteristic Surfaces.  
In *Proceedings of the Eleventh ACM SIGKDD International Conference on Knowledge Discovery and Data Mining (KDD-2005)*, ACM Press
- 2003 A. Silva, A. Jorge, and L. Torgo.  
Automatic selection of table areas in documents for information extraction.  
In *Proceedings of Portuguese AI Conference (EPIA'03)*., Number 2902 in LNAI, Springer
- 2003 R. Ribeiro and L. Torgo.  
Predicting harmful algae blooms.  
In *Proceedings of Portuguese AI Conference (EPIA'03)*, Number 2902 in LNAI, Springer
- 2003 L. Torgo and R. Ribeiro.  
Predicting outliers.  
In N. Lavrac, D. Gamberger, L. Todorovski, and H. Blockeel, editors, *Proceedings of Principles of Data Mining and Knowledge Discovery (PKDD'03)*, Number 2838 in LNAI, pages 447–458, Springer
- 2002 T. Hellström and L. Torgo.  
Post processing trading signals for improved trading performance.  
In A. Zanasi, C. A. Brebbia, N. F. F. E. Ebecken, and P. Melli, editors, *Data Mining III*, pages 437–447, WIT Press
- 2002 L. Torgo.  
Computationally efficient linear regression trees.  
In Jajuga, K., Sokolowski, A., and Bock, H., editors, *Classification, Clustering and Data Analysis: recent advances and applications (Proc. of IFCS 2002)*, Studies in Classification, data analysis, and knowledge organization, pages 409–415, Springer

## Scientific Activities (continued)

- 2001 L. Torgo.  
A study on end-cut preference in least squares regression trees.  
In P. Brazdil and A. Jorge, editors, *Proceedings of the Portuguese AI Conference (EPIA 2001)*, Number 2258 in LNAI, pages 104–115, Springer
- 2001 P. Almeida and L. Torgo.  
The use of domain knowledge in feature construction for financial time series prediction.  
In P. Brazdil and A. Jorge, editors, *Proceedings of the Portuguese AI Conference (EPIA '01)*, Number 2258 in LNAI, pages 116–129, Springer
- 2000 L. Torgo and J. P. Costa.  
Clustered partial linear regression.  
In R. Mantaras and E. Plaza, editors, *Proceedings of the 11th European Conference on Machine Learning (ECML 2000)*, Number 1810 in LNAI, pages 426–436, Springer
- 2000 L. Torgo and J. P. Costa.  
Clustered multivariate regression.  
In Kiers, Rasson, Groenen, and Schader, editors, *Data Analysis, Classification, and Related Methods*, Springer
- 2000 L. Torgo.  
Partial linear trees.  
In P. Langley, editor, *Proceedings of the 17th International Conference on Machine Learning (ICML 2000)*, pages 1007–1014, Morgan Kaufmann Publishers
- 2000 L. Torgo.  
Efficient and comprehensible local regression.  
In Terano, Liu, and Chen, editors, *Proceedings of the 4th Pacific-Asia Conference on Knowledge Discovery and Data Mining (PAKDD 2000)*, number 1805 in LNAI, pages 376–379, Springer
- 1999 L. Torgo.  
Predicting the density of algae communities using local regression trees.  
In *Proceedings of the European Congress on Intelligent Techniques and Soft Computing (EUFIT'99)*
- 1998 L. Torgo.  
Error estimates for pruning regression trees.  
In C. Nedellec and C. Rouveirol, editors, *Proceedings of the 10th European Conference on Machine Learning*, Number 1398 in LNAI. Springer Verlag
- 1998 L. Torgo.  
A comparative study of reliable error estimators for pruning regression trees.  
In H. Coelho, editor, *Proceedings of the Iberoamericam Conference on AI (IBERAMIA-98)*
- 1998 J. Gama, L. Torgo, and C. Soares.  
Dynamic discretization of continuous attributes.  
In H. Coelho, editor, *Proceedings of the Iberoamericam Conference on AI (IBERAMIA-98)*
- 1997 L. Torgo.  
Functional models for regression tree leaves.  
In D. Fisher, editor, *Proceedings of the 14th International Conference on Machine Learning*. Morgan Kaufmann Publishers
- 1997 L. Torgo and J. Gama.  
Search-based class discretization.  
In *Proceedings of the European Conference on Machine Learning (ECML-97)*, number 1224 in LNAI, Springer

## Scientific Activities (continued)

- 1996 L. Torgo and J. Gama.  
Regression by classification.  
In D. Borges and C. Kaestner, editors, *Proceedings of SBIA '96 (Brazilian AI Symposium)*, Number 1159 in LNAI, Springer
- 1993 L. Torgo.  
Controlled redundancy in incremental rule learning.  
In P. Brazdil, editor, *European Conference on Machine Learning (ECML-93)*, Number 667 in LNAI, pages 185–195, Springer-Verlag
- 1993 L. Torgo.  
Rule combination in inductive learning.  
In P. Brazdil, editor, *European Conference on Machine Learning (ECML-93)*, Number 667 in LNAI, pages 384–389, Springer Verlag
- 1991 P. Brazdil, M. Gams, S. Sian, L. Torgo, and Van de Velde.  
Learning in distributed systems and multi-agent environments.  
In Y. Kodratoff, editor, *Machine Learning: EWSL-91 (European Working Session on Learning)*, Lecture Notes in Artificial Intelligence, pages 412–423, Springer-Verlag
- 1990 P. Brazdil and L. Torgo.  
Knowledge acquisition via knowledge integration.  
In B. et al. Wielinga, editor, *Current Trends in Knowledge Acquisition*, pages 90–104, IOS Press
- Other Conferences -
- 2006 J. Barbosa and L. Torgo.  
Online ensembles for financial trading.  
In *Proceedings of the Workshop on Practical Data Mining: applications, experiences and challenges, ECML/PKDD'2006*
- 2005 L. Torgo.  
The TNT financial trading system: a midterm report.  
In *Proceedings of the Workshop on Data Mining for Business at ECML/PKDD 2005*
- 2005 R. Ribeiro e L. Torgo.  
A Comparative Study on Predicting Algae Blooms in River Douro, Portugal.  
In *Proceedings of the V European Conference on Ecological Modelling (ECEM-2005)*
- 2004 A. Loureiro, L. Torgo, e C. Soares.  
Outlier detection using clustering methods: a data cleaning application.  
In *Proceedings of KDNNet Symposium on Knowledge-based Systems for the Public Sector*
- 2003 A. Silva, A. Jorge, and L. Torgo.  
Selection of table areas for information extraction.  
In *Proceedings of the 3rd International Workshop in Document Analysis and its Applications (DLIA 2003)*
- 2003 M. Fernandes, L. Torgo and P. Bradil.  
Applications of machine learning techniques to financial time series prediction.  
In P. Bradil, M. Costa, and L. Torgo, editors, *Proceedings of the International Workshop on Data Mining and Adaptive Modelling Methods for Economics and Managment (IWAMEM-03)*

## Scientific Activities (continued)

- 2000 L. Torgo and J. P. Costa.  
Clustered partial linear regression.  
In R. Michalski and P. Brazdil, editors, *Proceedings of the Fifth International Workshop on Multistrategy Learning (MSL-2000)*
- 1997 L. Torgo.  
Kernel regression trees.  
In *Poster papers of the European Conference on Machine Learning (ECML-97)*
- 1997 L. Torgo.  
Pruning Regression Trees in Large Data Sets.  
In *Proceedings of JOCLAD-97*
- 1995 L. Torgo.  
Applying propositional learning to time series prediction.  
In Y. et al Kodratoff, editor, *Workshop on Statistics, Machine Learning and Knowledge Discovery in Databases*
- 1995 L. Torgo.  
Data fitting with rule-based regression.  
In J. Zizka and P. Brazdil, editors, *Workshop on Artificial Intelligence Techniques (AIT'95)*
- 1991 L. Torgo and M. Kubat.  
Knowledge integration and forgetting.  
In *Czechoslovak AI Conference*  
  
- *Edition of Proceedings* -
- 2005 J. Gama, R. Camacho, P. Brazdil, A. Jorge, and L. Torgo, editors.  
*Machine Learning: ECML 2005*.  
Number 3720 in LNAI, Springer
- 2005 A. Jorge, L. Torgo, P. Brazdil, R. Camacho, and J. Gama, editors.  
*Knowledge Discovery in Databases: PKDD 2005*.  
Number 3721 in LNAI, Springer
- 2003 P. Brazdil and M. Costa and L. Torgo.  
*Proceedings of the International Workshop on Data Mining and Adaptive Modelling Methods for Economics and Management*
- 2001 L. Torgo.  
*Workshop on Artificial Intelligence for Financial Time Series Analysis*  
  
- *Theses* -
- 1999 L. Torgo.  
*Inductive Learning of Tree-based Regression Models*.  
Ph.D. Thesis, Faculty of Sciences, University of Porto
- 1992 L. Torgo.  
A aprendizagem através de exemplos - trabalho de síntese, 1992.  
Provas de Aptidão Pedagógica e Capacidade Científica, Faculty of Economics, University of Porto
- 1992 L. Torgo.  
Relatório de uma aula prática sobre windows, 1992.  
Provas de Aptidão Pedagógica e Capacidade Científica, Faculty of Economics, University of Porto

## Scientific Activities (continued)

- 1989 L. Torgo.  
Aprendizagem em Sistemas Informáticos, 1989.  
Undergraduate Thesis, University of Minho
- *Internal Reports* -
- 2006 L. Torgo and R. Ribeiro.  
Predicting Rare Extreme Values.  
LIACC, Machine Learning Group, Technical Report-2006.1
- 1999 L. Torgo.  
Efficient and Comprehensible Local Regression.  
LIACC, Machine Learning Group, Technical Report-99.1
- 1998 L. Torgo.  
A Comparative Study of Reliable Error Estimators for Pruning Regression Trees.  
LIACC, Machine Learning Group, Technical Report-98.2
- 1998 L. Torgo.  
Sequence-based Methods for Pruning Regression Trees.  
LIACC, Machine Learning Group, Technical Report-98.1
- 1997 L. Torgo.  
RT programs, an users manual.  
LIACC, Machine Learning Group, Technical Report-97.1
- 1996 L. Torgo.  
Tools for Comparative Experiments using K-Fold Cross Validation.  
LIACC, Machine Learning Group, Technical Report-96.2
- 1996 L. Torgo.  
RECLA program.  
LIACC, Machine Learning Group, Technical Report-96.1
- 1992 L. Torgo.  
YAILS, an incremental learning program.  
LIACC, Machine Learning Group, Technical Report-92.1
- 1991 P. Brazdil and L. Torgo.  
Knowledge Integration and Learning.  
LIACC, Machine Learning Group, Technical Report-91.1
- Events Organization*
- 2008 18th COMPSTAT Symposium of the IASC-ERS, COMPSTAT'08, a decorrer no Porto em Agosto de 2008. Local organizing committee member,  
<http://www.fep.up.pt/compstat08/>
- 2005 9th European Conference on Principles and Practice of Knowledge Discovery, PKDD'2005. Program co-chair, local organization committee member and webmaster,  
<http://ecmlpkdd05.liaad.up.pt>
- 2005 16th European Conference on Machine Learning, ECML'2005. Local organization committee member and webmaster,  
<http://ecmlpkdd05.liaad.up.pt>

## Scientific Activities (continued)

- 2003 14th European Conference on Machine Learning, ECML'2003. Workshop chair,  
<http://www.cs.kuleuven.be/conference/ecmlpkdd/>
- 2003 7th European Conference on Principles and Practice of Knowledge Discovery, PKDD'2003. Workshop  
chair,  
<http://www.cs.kuleuven.be/conference/ecmlpkdd/>
- 2003 International Workshop on Data Mining and Adaptive Modelling Methods for Economics and Manag-  
ment, 2003. Local organization committee member,  
[http://www.liaad.up.pt/ML/AMEMIG/iwamem\\_03.html](http://www.liaad.up.pt/ML/AMEMIG/iwamem_03.html)
- 2001 Workshop on Artificial Intelligence for Financial Time Series Analysis, 2001. Program Chair, local  
organization committee member, and webmaster,  
<http://www.liaad.up.pt/~ltorgo/AIFTSA/>

### *Scientific Evaluation*

- *Academic Juris* -

- 2008 Ph.D. Thesis of Pedro Rafael de Ruiz Graça - “Aprendizagem Interactiva em Sistemas Multi-Agente”,  
University of Lisbon, Portugal
- 2008 Ph.D. Thesis of Anneleen Van Assche - “Improving the Applicability of Ensemble methods in Data  
Mining”, Katholieke Universiteit Leuven, Belgium
- 2007 Ph.D. Thesis of Pedro Gabriel Dias Ferreira - “Sequence Pattern Mining in Biochemical Data”, Univer-  
sity of Minho, Portugal
- 2005 Ph.D. Thesis of Kwok Pan Pang - “Statistics for Structural Break Detection and Their Application to  
Forecasting and Statistical Process Control”, Monash University, Australia
- 2004 MSc. Thesis of Susana Pereira - “Análise de Séries Temporais no Domínio das Telecomunicações  
Móveis”, Masters on Statistics and Information Management, ISEGI, New University of Lisbon, Portugal
- 2003 Ph.D. Thesis of Vitor Lobo - “Ship Noise Classification, a contribution to prototype based classifier  
design”, New University of Lisbon, Portugal
- 2003 MSc. Thesis of Raul Moisés - “Modelo Predictivo, Baseado em Redes Neurais, para Previsão em  
Séries Temporais com Origem em Sistemas Financeiros”, New University of Lisbon, Portugal

- *Program Committees* -

- KDD ACM SIGKDD International Conference on Knowledge Discovery and Data Mining - 2007
- ICML International Conference on Machine Learning - 2010, 2009 (Area Chair), 2008 (Area Chair)
- ECML European Conference on Machine Learning - 2008, 2007 (Area Chair), 2006 (Area Chair), 2005 (Area  
Chair), 2004, 2003
- ICDM IEEE International Conference on Data Mining - 2007, 2006, 2005, 2004
- PKDD European Conference on Principles and Practice of Knowledge Discovery in Databases - 2008, 2007  
(Area Chair), 2006 (Area Chair), 2005 (Program Chair), 2004, 2003
- PAKDD Pacific-Asia Conference on Knowledge Discovery and Data Mining - 2008, 2007
- DS International Conference on Discovery Science - 2008, 2007

## Scientific Activities (continued)

SAC	ACM Symposium on Applied Computing - 2005
ADMA	International Conference on Advanced Data Mining and Applications - 2008, 2007, 2006, 2005
EPIA	Portuguese AI Conference - 2005, 2001
SBIA	Brazilian Symposium on Artificial Intelligence - 2008, 2004
	- <i>Reviewing</i> -
	Journals
MLj	Machine Learning Journal, Kluwer Academic Publishers.
JAIR	Journal of Artificial Intelligence Research, Morgan Kaufmann.
PAMI	IEEE Transactions on Pattern Analysis and Machine Intelligence, IEEE Computer Society.
IDA	Intelligent Data Analysis, Elsevier Science.
DSS	Decision Support Systems, Elsevier Science.
IJHCS	International Journal of Human-Computer Studies, Elsevier Science.
AIcomm	AI Communications, IOS Press.
IJAIT	International Journal on Artificial Intelligence Tools, World Scientific.
	Conferences
IJCAI	International Joint Conference on Artificial Intelligence - 1999
ECAI	European Conference on Artificial Intelligence - 2002, 1998, 1994
KDD	ACM SIGKDD International Conference on Knowledge Discovery and Data Mining - 2001
ICML	International Conference on Machine Learning - 2004, 1999
ECML	European Conference on Machine Learning - 2001, 2000, 1998, 1997, 1995, 1994, 1993, 1991
PKDD	European Conference on Principles and Practice of Knowledge Discovery in Databases - 1999
IBERAMIA	Iberoamerican Conference on Artificial Intelligence - 2002, 2000, 1998
SBIA	Brazilian Symposium on Artificial Intelligence - 2002
IFCS	International Federation of Classification Societies - 2000
AIT	International Workshop on Artificial Intelligence Techniques - 1996, 1995
	<i>Software</i>
2005	TNT - an autonomous trading system for financial markets
2001	CLRT - Clustered regression models

## Scientific Activities (continued)

- 1999 RT - Tree-based regression models,  
<http://www.liaad.up.pt/~ltorgo/RT>
- 1997 C library for propositional learning (in conjunction with João Gama)
- 1996 RECLA - Regression through classification,  
<http://www.liaad.up.pt/~ltorgo/Projects/recla.html>
- 1996 KERTI - Kernel regression trees
- 1996 EcoTerme - Calculus of thermic behaviour of buildings
- 1995  $R^2$  - regression rules learner,  
<http://www.liaad.up.pt/~ltorgo/Projects/r2.html>
- 1995 YAP-Prolog library for propositional learning
- 1993 YAILS - Incremental learning of classification rules,  
<http://www.liaad.up.pt/~ltorgo/Projects/yails.html>
- 1991 INTEG - Knowledge integration system,  
<http://www.liaad.up.pt/~ltorgo/Projects/integ.html>

## Other Activities

### *Management Activities*

- 2005–2008 Member of the ECML-PKDD Steering Committee
- 2005–2009 Webmaster of the Faculty of Economics of the University of Porto,  
<http://www.fep.up.pt>
- 2005–... Webmaster of the Modelling Dynamic Systems subgroup of interest of LIAAD,  
<http://liaad.inescporto.pt/modys>
- 1999–2004 Organizer (together with Mário Florido and Luís Paulo Reis) of the Seminars of LIACC,  
<http://www.liaad.up.pt/~ltorgo/Seminarios/>
- 1999–2005 Member of the Directive Board of the Portuguese Association of Artificial Intelligence (APPIA),  
<http://www.appia.pt>

### *Affiliations*

- Member of the Association for Computing Machinery (ACM)
- Member of the International Machine Learning Society
- Member of the Portuguese Association of Artificial Intelligence