

# Curriculum Vitae

## Personal Details

Name: Joost Johannes Joosten  
Date of Birth: 10.10.1972  
Place of Birth: Diemen  
Nationality: Dutch  
Marital Status: Married to M. Montoya Garcia (GP)  
Parental Status: Father of Francisco Thomas Jacobus Joosten (30-6-2005)  
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## Diplomas

2004 PhD, Mathematical Logic, University of Utrecht  
2004 Basic University Teaching Qualification  
1998 Master of Science, Mathematics, University of Amsterdam,  
Cum Laude (with highest distinction)  
1996 Erasmus Diploma in Italian  
1992 *Propedeuse*, Mathematics, University of Amsterdam  
1992 *Propedeuse*, Physics and Astronomy, University of Amsterdam

## Education

2000-2004 PhD at the Philosophy Department, Utrecht University  
1999 Didactic course *Mathematics in the IB program*, Aman, Jordan  
1996-1997 Department of Spanish, University of Amsterdam  
1995-1996 Italian language course, Università per Stranieri, Siena  
1995-1996 Department of Mathematics, Università degli Studi di Siena  
1990-1998 Department of Mathematics and Computer Science, UvA  
1990-1994 Department of Physics and Astronomy, University of Amsterdam

## Work history

2006-2007	Senior lecturer and researcher at the Institute for Logic Language and Computation, University of Amsterdam
2006	Senior lecturer and researcher at Utrecht University department of philosophy
2005-2006	Researcher at the Mathematical Institute of the Czech Academy of Sciences, Prague
2005	Lecturer of Artificial Intelligence at the ILLC, UvA, UD2, responsibilities include, developing more course material, instructing teaching assistants, making exams, web support, and teaching
1991-2005	Educational employee at the Artis Planetarium, Amsterdam
Winter 2004/2005	Lecturer at the Philosophy Department of UU, responsibilities comprise, setting up the courses, developing material, instructing teaching assistants, making exams, web support, and teaching
2004-2005	Mentor at the Department of Liberal Arts and Sciences at Utrecht University
1999-2004	Junior Lecturer at the Philosophy Department of UU
1999-2004	PhD student at the Philosophy Department of UU
1999	Teacher of Mathematics at the <i>Colegio Internacional Costa Blanca</i> (IB school, Spain)
1997	Mathematical support at the translation of <i>Fermat's last theorem</i> by <i>Simon Singh, Fourth Estate, London</i>
1996-1998	Teaching assistant at the University of Amsterdam
1994-1998	Assistant high school teacher at the private <i>Brookman Instituut</i>
1994-1995	Student representative of the board of advisors of the faculty of science (WINS) of the University of Amsterdam
1992-1993	Assistant high school teacher at the private <i>Instituut de Leeuw</i>
1991	Junior interviewer at <i>Interview</i> Amsterdam

Apart from these paid jobs, there are some additional voluntary jobs that could be included.

## Other activities

- Advising more than five different *New Venture* projects
- Participating in *Stichting Vierkant*, a foundation for mathematics for children
- Participating in the *Weekendschool*, a school for children from underprivileged neighborhoods
- Educating political refugees in the Netherlands on astronomy

- Coaching a highly gifted autistic boy and preparing his acceptance at the University of Amsterdam at the age of fourteen
- Broadcasting a program on Spanish and Latin-American Music on the pirate radio station *Patapoe*
- Taking a flamenco guitar course and History of Flamenco at the *Fundacion Cristina Heeren*, Seville, Spain (1999 October-November)
- Volunteering at *Natuurmonumenten Naardemeer*
- Participating in the public relations/information service of the University of Amsterdam
- Participating in a project for dynamic balance for steady-cam.

## Languages

<b>Dutch:</b>	Native	<b>German:</b>	Intermediate level
<b>English:</b>	Fluent	<b>Italian:</b>	Intermediate Level
<b>Spanish:</b>	Fluent	<b>French:</b>	Rudimentary level

## Grants and Prizes

All foreign invited talks that are mentioned later on, came with funding for travel and hotel expenses. Thus, they are not included in this list.

2006	Grant <i>Kort Werkbezoek Buitenland</i> of N.W.O. (€2100)
2005	Travel grant for the Notre Dame summer school (800 \$ + lodging)
2004	Stimulation prize for excellent education (€1200)
2003	Ranked among the best five teachers of Utrecht University
2001	Stimulation prize for organization skills (1000 Fl)
2000	Travel grant for the 6th Barcelona meeting (350 \$)
1999	College fee for student representatives (3000 FL)
1999	Rent-less loan of the <i>Fundatie van de Vrijvrouwe van Renswoude te Utrecht</i> (3000 FL)

## Theses

J. J. Joosten. Interpretability formalized. PhD thesis, Utrecht University, November 2004. ISBN: 90-393-3869-8.

J. J. Joosten. Towards the interpretability logic of all reasonable arithmetical theories. Master's thesis, University of Amsterdam, 1998.

## Refereed articles

L. D. Beklemishev, J. J. Joosten and M. Vervoort. A finitary treatment of the closed fragment of Japaridze's provability logic. *Journal on Logic and Computation*, 15(4), 447-463; 2005.

J. J. Joosten. On interpretability in PRA; The closed fragment of the interpretability logic of PRA with a constant for  $\text{I}\Sigma_1$ . *Notre Dame Journal of Formal Logic*, 46(2); 127-146; 2005.

J. J. Joosten and A. Visser. How to derive principles of interpretability logic, A toolkit, In van Benthem, Troelstra, Veltman, Visser editors, *Liber Amicorum for Dick de Jongh*. Institute for Logic, Language and Computation, 2004. ISBN: 90 5776 1289

M. Bilkova, E. Goris and J. J. Joosten. Smart Labels. In van Benthem, Troelstra, Veltman, Visser, editors, *Liber Amicorum for Dick de Jongh*. Institute for Logic, Language and Computation, 2004. ISBN: 90 5776 1289

J. J. Joosten. Formalized Interpretability in Primitive Recursive Arithmetic. In *Proceedings of the ESSLLI student session*, 2003.

J. J. Joosten and A. Visser. The Interpretability logic of all reasonable arithmetical theories. *Erkenntnis*, 53(1-2):3-26,2000.

## Other publications

J. J. Joosten. Semantics for sub-intuitionistic logics. ILLC Preprint Publication Series, PP-2006-56; 2006.

J. J. Joosten. Propositional proof systems and fast consistency provers. Logic Group Preprint Series, Utrecht University, Department of Philosophy; 2006.

J. J. Joosten. Credit cards, computationele complexiteit en consistentie uitspraken. Technical Report X-2006-02, ILLC, Amsterdam 2006. Accepted for publication in *De Connectie*.

J. J. Joosten. What is Flamenco? Cultural background article + review. ProvokátoR, Prague, December 2005.

J. J. Joosten and E. Goris. The many faces of interpretability. Technical report, Institute for Logic Language and Computation, Amsterdam, 2005.

J. J. Joosten and B. van der Spoel. Wiskunde onderwijs binnen de studie Cognitieve Kunstmatige Intelligentie. An analyzing and advising internal policy document used to change the mathematical curriculum within the Cognitive Artificial Intelligence study. University of Utrecht, 2005.

J. J. Joosten. Het hoofd van een filosoof. Satirical article in *De Filosoof*, News letter of the Department of philosophy, University Utrecht, Winter 2004.

J. J. Joosten and A. Visser. Characterizations of Interpretability. Technical report, University of Utrecht, 2004.

E. Goris and J. J. Joosten. Modal Matters in Interpretability Logics. Logic Group Preprint Series 226, University of Utrecht, March 2004.

J. J. Joosten. Iterations of Total Functions and Parsons' Theorem. Volume of Abstracts 12<sup>th</sup> International Conference LMPS, 65, ISBN 600-9913-X, 2003.

J. J. Joosten. The closed fragment of the interpretability logic of PRA with a constant for  $\text{I}\Sigma_1$ . Logic Group Preprint Series 128, University of Utrecht, February 2003.

J. J. Joosten. Two proofs of Parsons' Theorem. Logic Group Preprint Series 127, University of Utrecht, November 2002.

J. J. Joosten. Arithmetics, A course by Lev Beklemishev, Personal notes. Lecture notes online at <http://www.phil.uu.nl/~joosten/>

### **Submitted papers**

J. J. Joosten. Semantics for Sub-Intuitionistic Logics.

J. J. Joosten. Optimal Proof Systems and Fast Consistency Provers. Journal submission, 2006 (accepted).

E. Goris, J. J. Joosten. *Materiae Modales in Logica Interpretabilitatis*. Journal submission, 2006.

J. J. Joosten. Two proofs of Parsons' Theorem. Submitted to the *Archive for Mathematical Logic* in July 2004.

### **Under preparation**

E. Goris, J. J. Joosten, Two hierarchies of principles of formalized interpretability over weak systems of arithmetic. Almost finished. To be submitted to the *Journal of Symbolic Logic*.

M. Bilkova, J. J. Joosten, On the interpretability logic of PRA.

G. Olney Passmore, J. J. Joosten. Topological properties of SAT.

## **Courses taught**

Autumn 2006	Recursion theory (for Master of Logic students)
Spring/Summer 2006	Advanced Logic for Philosophers (full time students)
Spring/Summer 2006	Advanced Logic for Philosophers (part time students)
Spring 2005	Logic and Symbolic Robotics for A.I. (at the ILLC)
2004-2005	Core Logic 1 for Philosophers (part time students)
2004-2005	Core Logic 1 for Philosophers (full time students)
Fall 2004	The logic of Provability
September 2004	Brush-up course Mathematics for Artificial Intelligence
October 2003	Logic for Philosophers
Spring 2003	The Logic of Provability and Interpretability
September 2002	Mathematics for Neural Networks
2002-2003	Mathematical Logic and its History
2001-2002	The Logic of Provability
2001-2002	Core Logic 2 for Philosophers
Spring 2001	Logical Techniques
1999-2000	Logical Techniques

At both the university where the courses have been taught, the students responded very enthusiastically with a nomination for the prestigious best lecturer of the year award.

(See <http://www.phil.uu.nl/~icon/jjjj/>  
and <http://www.jjjmoetblijven.nl>)

## **Teaching assistantships during PhD**

2000-2001	Proof-theory of Arithmetic by Lev D. Beklemishev
2000-2001	Gödel's Theorem and Recursive Functions, by Saul Kripke
2000-2001	Complexity Theory
2000-2001	Type Theory
1999-2000	Logic Toolkit for Knowledge Representation

## Academic responsibilities

- 2006 Organizer of the *Gödel Centenary Celebration* in the *Jaarbeurs* in Utrecht, commissioned by the *Onderzoeksschool Logica* and the *De Nederlandse Vereniging voor Logica & Wijsbegeerte der Exacte Wetenschappen*
- 2006 Organizer of the Workshop on Provability Logics and Weak Arithmetics, Prague, 2006
- 2006 Organizer of the Prague-Vienna workshop on Proof Theory and Proof Complexity, 2006
- 2005 – Reviewer for Zentralblatt MATH
- 2005 Leading an investigation to the adequateness of the maths courses in the Bachelor C.K.I. (A.I.), Utrecht University.
- 2004 Member of the organizing and of the program committee of the *accolade* at the OZSL schoolweek
- 2002-2005 Organizer of the lunch seminar of the department of theoretical philosophy at Utrecht University
- 2004-2005 Founder and organizer of the philosophical lunch seminar *F-lunch* at the department of philosophy at Utrecht University
- 2004-2005 Founder and organizer of the lunch seminar L4 at the ILLC at the University of Amsterdam
- 2003– Reviewer for the Mathematical Reviews
- 2002-2003 Representative of *BAU*, an association for PhD students
- 2000-2001 Organizer and teaching assistant at Saul Kripke's course on Gödel's Theorem and Recursive Functions
- 2000-2001 Mentor at the Department of Cognitive Artificial Intelligence at Utrecht University
- 2000 Member of the organizing and of the program committee of the *accolade* at the OZSL schoolweek

## Talks

Other than these talks there are many astronomical talks given at the *Artis Planetarium*.

- 2-11-2006 *Lower Bounds for Intuitionistic Propositional Logic*; Logic Seminar; Utrecht
- 7-9-2006 *Semantics for sub-intuitionistic logics*; Invited Speaker; Workshop on Proof Theory and Rewriting; Obergurgl; Austria
- 27-7-2006 *Lower bounds in Proof Complexity*; Invited Special Session Speaker; Logic Colloquium 2006; Nijmegen; The Netherlands
- 12-5-2006 *Computational complexity and short proofs of consistency statements*; Mathematical Logic Colloquium; Amsterdam
- 18-4-2006 *Computational complexity and short proofs of consistency statements*; TF lunch seminar; Utrecht
- 23-01-2006 *A Solovay function for weak arithmetics*; Talk at the Workshop on Provability Logics for Weak Arithmetics; Prague; Czech Republic
- 11-01-2006 *Large objects in modal logics* 2006 Prague-Vienna workshop on proof

theory and proof complexity; Prague; Czech Republic  
09-12-2005 *Reflection Principles and Polynomial Size Proofs*; Invited speaker; University of Göteborg; Göteborg; Sweden

05-12-2005 *Notes on Optimal Proof Systems II*; Logic Seminar; Mathematical Institute of the Czech Academy of Sciences; Prague

28-11-2005 *Notes on Optimal Proof Systems I*; Logic Seminar; Mathematical Institute of the Czech Academy of Sciences; Prague

16-05-2005 *Provability, Interpretability and Proof Strength*; Invited speaker at the Mathematical Institute of the Czech Academy of Sciences; Prague

30-11-2004 *Super models and Worms*; Invited speaker at the OZSL schoolweek; Nunspeet

September 22 2004 *Interpretations and ...*; L4, ILLC, Amsterdam

September 2004 *Worms, interpretations and proof strength*; Invited speaker, Colloquium Logicum, DVML, Heidelberg, Germany

May 2004 *Pictures for a hierarchy of modest wise-guys*; L4, ILLC, Amsterdam

May 2004 *Models for GLP; Counting up to  $\epsilon_0$ , part 2: almost there*; Tf-lunch seminar, Utrecht

May 2004 *Models for GLP; Counting up to  $\epsilon_0$* ; Tf-lunch seminar, Utrecht

April 2004 *On Interpretability, part 2*; Seminar on Logical Problems in Computer Science, Moscow State University, Russia

April 2004 *On Interpretability, part 1*; Seminar on Logical Problems in Computer Science, Moscow State University, Russia

March 2004 *Introducing the paradoxes*; Chair of the symposium *Paradoxaal*, Utrecht University

January 2004 *Modal Matters in Interpretability Logics, Part 2*; Tf-lunch seminar, Utrecht

December 2003 *Modal Matters in Interpretability Logics*; Tf-lunch seminar, Utrecht

August 2003 *Formalized Interpretability in Primitive Recursive Arithmetic*; ESSLI, Vienna, Austria

August 2003 *Iterations of Total Functions and Parsons' Theorem*; LMPS, Oviedo, Spain

June 2003 *Using Interpretations in Comparing Theories*; Logic Tea (ILLC Colloquium), Amsterdam

March 2003 *Interpretability over Primitive Recursive Arithmetic*; Colloquium on Mathematical Logic, Utrecht

November 2002 *Alice in Wonderland*; Fuf Evening lectures, Utrecht

November 2002 *The reduction property in graded provability algebras*; Institute for mathematical logic, University of Münster, Germany

October 2002      *Lewis Carroll and logic;*  
                          Tf-lunch seminar

August 2002      *The closed fragment of the interpretability logic of primitive*  
                          *recursive arithmetic with a constant for  $I\Sigma_1$ ;*  
                          Logic Colloquium, Muenster, Germany

July 2000          *Interpretability logics and the step by step method;*  
                          6th Barcelona Logic Meeting, Barcelona, Spain

## PRE-ACADEMIC

### High school grades

Maths A	8	Biology	8
Maths B	7	Physics	7
Chemistry	7	Dutch	7
English	7		

### Miscellaneous

- Active organizing and participating member of the *Jongeren Werk Groep* (J.W.G.), an astronomy association for youngsters. Activities include:
  - Being treasurer of the region Amsterdam and surroundings.
  - Organizing and participating in summer camps on both regional and national level.
  - Organizing weekend lectures on both regional and national level.
  - Giving lectures on astronomical themes.
  - Giving and organizing workshops on astronomical themes.
  - Writing articles for the *Komeet*, the periodical of the J.W.G.
  - Editing, printing and distributing the *Komeet*.
- Member of *D.J.O., De Jonge Onderzoeker*. This is an association which was part of the *Stichting Mens en Wetenschap* and which organizes laboratory experiments for children.
- Violin lessons (taken and taught) and participation in various little orchestras and ensemble's.
- Activities at the *Muiderberg Observatory*.
- Programming on various early computers including the *Sinclair* and the *Commodore 64*.

## **Periodicals read**

- + *De Kijk*
- + *Mens en Wetenschap*
- + *Grasduinen*
- + *Universum*
- + *Zenit*
- + *De Komeet* (editor)

## **Sidelines**

- Tutoring in science
- Baby sitting
- Super market
- News paper round

## **Sports**

- Baseball
- Sailing
- Athletics
- Mountaineering
- Rowing

## **Musical Instruments**

- Violin
- Guitar (Classical and flamenco)
- Piano

References available upon request.