

# Dr Daniela Cancila - Curriculum vitae

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## 1 Personal details

**Name:** Daniela Cancila

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## 2 Education

- February 2007: **Qualification en Maître de Conférence** (lecturer) in Computer Science. France.
- May 2003: **PhD in Computer Science**, University of Udine.  
Title: *Investigations in the Categorical and Applications of Coalgebras and Hyperset* ; supervisors: Furio Honsell and Marina Lenisa.
- June 1998: **DEA**, Diplôme d'Études Approfondies, (Master 2ème année Recherche), IML Luminy, Marseilles, France.  
**Mathématique Discrète et Fondements de l'Informatique** (Discrete Mathematics and Theoretical Computer Science); course director: J.Y. Girard.
- July 1997: **Laurea degree in Philosophy**, University of Rome, 100/100.  
Title of thesis: "Gli hyperset come strumento logico" (Hypersets as logical tools). supervisor: Corrado Böhm.

## 3 Academic employment

- **September 2005 - December 2007:** EU research grant on "ASSERT (Automated proof-based System and Software Engineering for Real-Time applications) " University of Padova, Pure and Applied Mathematics Department, post-doc position, with Prof. Tullio Vardanega
- **September 2004 - June 2005:** research grant on "Verification of Reactive Systems through Semi-Automatic Algebraic Techniques" University of Udine, Computer Science and Mathematics Department, post-doc position, with Prof. Furio Honsell
- **November 2004 - February 2005,** post-doc position for the study of website accessibility, with particular reference to PDA and impaired users, planning and personalization of a transcoder for the website of the Friuli - Venezia Giulia regional authority. University of Udine, Computer Science and Mathematics Department, with Prof. Giorgio Brajnik
- **1999 - 2003,** PhD. MIUR ("*Ministero dell'Università e della Ricerca*") scholarship.

## 4 Teaching

The teaching activity has been paid by the involved universities.

- **2006 - 2008** (two years) Professor: “Theoretical Computer Science” course at University of Padua, Facoltà di Scienze MM.FF.NN (Mathematics, Physics and Natural Science). Course content: Structured Computer Organization, Operating Systems, Networks. Responsibilities include: theory and practice, 32 teaching hours for 150 students, supervisor of a tutor for laboratory course, marking of written exams, oral exams.
- **2002 - 2005** (three years) university tutor: “Computer Science Laboratory” course at University of Venice (IUAV). Course content: Structured Computer Organization, Operating Systems, Networks; Programming Languages (HTML, JavaScript). Responsibilities include: theory and practice, 100 teaching hours for 120 students, laboratory, marking of written exams, oral exams. (Referent: prof. Mazzanti)

## 5 Scientific Responsibilities

- **April 2004 - December 2004**, joint supervisor for laurea (master thesis) of Daniela Nicoli. Subject: Study of website accessibility, with particular reference to disabled users. Supervisor: prof. Giorgio Brajnik
- **April 2004 - December 2004**, joint supervisor for laurea (master thesis) of Mery Pignatelli. Subject: Study of website accessibility, with particular reference to palmtop computers. Supervisor: prof. Giorgio Brajnik

## 6 Scientific Projects

- **2006 - Dec. 2007** Founder and Coordinator of the research team: META (MEthod and Tools for Advanced Software Engineering), team leader: prof. T. Vardanega, web site: <http://meta.math.unipd.it>

The META Research Group was founded in April 2006 at the Department of Pure and Applied Mathematics of the University of Padua. Our research interests are in the area of software engineering, in particular on metamodelling, correctness by construction, reuse and generative programming.

- **2002-2003** Coordinator of the research team: FMLC “Formal Methods and Logic of Computation”, team leader: prof. F. Honsell, web site: <http://farfarello.dimi.uniud.it/index.php>

## 7 Other employments

- **2003 - present:** Computer Science consultant, reference division, Zanichelli, Bologna.

## 8 Research Interests

- **Software Engineering**, I was a member of the ASSERT EU project (2005-2007). I am interested in both development of real time embedded systems, and processes and methodologies for the engineering of software-intensive high-integrity systems.
- **Theoretical Computer Science**, I am a member of the Formal Methods and Logics of Computation research group. Head of research team: prof. Furio Honsell. Research interests: circular processes; semantics, verification techniques.

### 8.1 Past Research Interests

- **Design and evaluation principles for human-computer interfaces for information access:** website quality, usability and accessibility and supporting tools.

## 9 Publications

### 9.1 Books

- Daniela Cancila **Investigation in the Categorical Foundation and Application of Coalgebra and Hyperset**. PhD Thesis Series, Dipartimento di Matematica e Informatica, University of Udine, Forum ed., Udine, 2004

### 9.2 Journals

- Giorgio Brajnik and Daniela Cancila *Effectiveness, Productivity and Satisfaction of Person with sight and motor disabilities*, Journal of Web Engineering, vol 5, no 4, 2006

### 9.3 International Conferences (with referee)

- Daniela Cancila, Furio Honsell and Marina Lenisa *Some Properties and Some Problems on Set Functors*, Int. Conf. CMCS'06, ENTCS, vol. 164, 2006
- Daniela Cancila, Furio Honsell and Marina Lenisa *Functors Determined by Values on Objects* Int. Conf. MFPS'06, ENTCS, vol 158, 2006

- Giorgio Brajnik, Daniela Cancila, Daniela Nicoli, Mery Pignatelli **Do dynamic text-only web pages improve usability for PDA users?** First Usability Symposium Austrian Computer Society, Nov. 2005, Vienna, Austria
- Giorgio Brajnik, Daniela Cancila, Daniela Nicoli, Mery Pignatelli **Are text transcoders effective?** CSUN 2005 Annual International Conference “Technology and Persons with Disabilities”, Los Angeles, 2005
- Daniela Cancila, Furio Honsell, Marina Lenisa **Properties of Set Functors** Conf. Proc. of Computational Metamodels, COMETA 2003, ENTCS, Springer, dec. 2003.
- Daniela Cancila, Furio Honsell **A Coalgebraic Description of Web Interaction.** Conf. Proc. of Italian Conference of Theoretical Computer Science (ITCS), LNCS, vol. 2841, 2003, pag.271-283.  
Conference Paper of Usability in website by exploiting the Log File: a coalgebraic approach. Research Report UDMI/6/2003/RR
- Daniela Cancila, Furio Honsell, Marina Lenisa. **Generalized Coiteration Schemata.** Conf. Proc. CMCS03, ENTCS, 2003

#### 9.4 Workshops (with referee)

- Giorgio Brajnik, Daniela Cancila, Daniela Nicoli, Mery Pignatelli **Do text transcoders improve usability for disabled users?** International Cross-Disciplinary Workshop on Web Accessibility, May 2005, Chiba, Japan.
- Giorgio Brajnik, Daniela Cancila, Daniela Nicoli, Mery Pignatelli **Do dynamic text-only web pages improve usability for disabled users?** HCIItaly 2005, Simposio su Human-Computer Interaction, Roma, Italy, Sept. 2005
- Daniela Cancila, Furio Honsell. **A coalgebraic description of web interaction.** Long Abstract. Technical Report 0207, Institut für Informatik, LMU München, 2002. 16 International Workshop on Algebraic Development Techniques 2002, WADT 02. Frauenchiemsee, Germany.
- Remi Baudot, Daniela Cancila. **Curry and NoCLog: a study of concurrency through the dining philosophers problem** Functional and (constraint) Logic Programming. 11 International Workshop WFLP 2002, M. Falaschi ed., Research Report UDMI/18/2002/RR, pag. 131-144.

#### 9.5 Workshops (without referee)

- Daniela Cancila **Investigations in the Categorical Foundations and Applications of Coalgebras and Hyperset.** Workshop in Computational Metamodels CoMeta, Como, may 2003.

- Daniela Cancila, Furio Honsell, Marina Lenisa. **Towards web sites' analysis based on coalgebras** Workshop in Computational Metamodels, CoMeta02. Venezia. 2002.

## 9.6 Technical Reports

- Daniela Cancila, Marco Trevisan **HRT-UML/RCM Tutorial**, ASSERT Release, Univerity of Padova, August 2007, <http://www.math.unipd.it/%7Etullio/Research/ASSERT/Tutorial/>
- Daniela Cancila, Marco Panunzio **Deployment Attributes**, ASSERT - Internal Release, Univerity of Padova, December 2006
- Daniela Cancila, Tullio Vardanega **A UML2.0 View of the Structural Properties of the Ravenscar Computational Model**, ASSERT - Internal Release, Univerity of Padova, December 2006
- Daniela Cancila, Tullio Vardanega **AP-level Containers: A Survival Kit**, ASSERT - Internal Release, 004033.DDHRT3-1.TN.1, December 2006
- Daniela Cancila, Tullio Vardanega **An HRT-UML/RCM Interface Grammar for AP-level Modeling**, ASSERT - External Public Release, 004033.DDHRT\_UPD.DVRB.03, September, 2006
- Daniela Cancila, Enrico Mezzetti, Rocco Moretti (UPD), Maria Rosaria Barone, Stefano Puri (Intecs). **A UML2 Profile of the Ravenscar Computational Model** ASSERT- External Public release, ID 004033.DVT\_UPD.DVRB.02, January, 2006
- Daniela Cancila, Furio Honsell, Marina Lenisa. **Usability in website by exploitinig the Log File: a coalgebraic approach**. Research Report UDMI/6/2003/RR
- Daniela Cancila, Furio Honsell, Marina Lenisa. **T-coiteration generalized**, Workshop in Computational Metamodels, CoMeta, Milano, marzo 2002
- Daniela Cancila, Furio Honsell, Marina Lenisa. **Generalized Coiteration Schemata**. Research Report UDMI/20/RR

## 9.7 Forthcoming

- **(Forthcoming)** An Algebran of the Interaction of Components in the Ravenscar Computational Model (with R. Passerone et T. vardanega), International Conference.
- **(Forthcoming)** Corectness-by-Costruction in the MDE Light (with T. Vardanega), International Conference.

- **(Forthcoming)** The Birth of Circular Processes, Coalgebras, Bisimulation Notions: a Historical Approach (with F. Honsell and M. Lenisa). Journal.

## 10 Recent Invited Seminars

- Correttness by Construction in the Model-Driven Engineering, invited seminar by J. Sifakis (Turing Award 2008), *Verimag*, Grenoble, France, Janvier 2008
- Correttness by Construction in the Model-Driven Engineering, invited seminar, *Commissariat à l’Energie Atomique* CEA Saclay, France, 20 November 2007
- Correttness by Construction in the Model-Driven Engineering, invited seminar, University of Padova, 9 november 2007

### 10.1 Seminars

- Equivalent relations and bisimulation for Mobile Ambients, in two parts, Formal Methods and Logic of Computation, University of Udine, 7th and 14th January 2003
- A Coalgebraic View of Web Interaction, (with F. Honsell e M. Lenisa), in three parts, Formal Methods and Logic of Computation, University of Udine, 22, 29 October and November 2002
- Semantics Issues in the Verification of Agent Communication Languages. University of Udine, 2000
- Network security and the protection of programs, University of Udine, 2000

## 11 Scientific Collaborations

- **(Forthcoming)** From spring 2008, I will be taken on as computer scientist to *Commissariat à l’Energie Atomique* CEA Saclay.
- dec. 2007 - today I’m cooperating with dr Roberto Passerone, Assistant Professor at the “Dipartimento di Ingegneria e Scienza dell’Informazione”, University of Trento (Software Engineering Research)
- 2005 - today I’m cooperating with prof. Tullio Vardanega, Professor at the “Dipartimento di Matematica Pura e Applicata”, University of Padova (Software Engineering Research)
- 2003 - today I’m cooperating with prof. Stefano Mazzanti, Professor at IUAV, University of Venice (Zanichelli Project)

- 1999 - today I'm cooperating with magnifico rettore Furio Honsell and Marina Lenisa, professors at the "Dipartimento di Matematica e Informatica", University of Udine (Theoretical Computer Science Research)
- 2005 - 2007 Cooperation with the scientific community involved in the ASSERT European Project (Software Engineering Research)

## 12 Foreign Languages

- **French:** fluent (written and spoken).
- **English:** fair. Doctorate in English

## 13 Other interests

- Music: finalist in the MTV competition Brand-new talent (2001) and in "Musiche Furlane" promoted by Radio Onde Furlane (2001). Currently learning the cello.
- Sport: as teenager ran at a national level, middle distance.
- Chess: was Italian women's chess champion in 1991
- General cultural interest in contemporary history, architecture, cinema and music.