

September 14, 2011

## CURRICULUM VITAE FOR THOMAS TROELS HILDEBRANDT

*Date of birth:* Oct. 7th, 1972. *Nationality:* Danish.

*Marital status:* Married to Sybille Hildebrandt

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### Education

- 2002: SHL course on Personal Management of Leadership
- Feb. 2000: PhD in Computer Science, University of Aarhus.
- May 1997: MSc in Computer Science, University of Aarhus.

### Present and recent positions

- 2002 - present: Associate Professor, ITU.
- 2004 - 2011: Director of the International Research School on Foundations for Innovative Research Based Software Technologies (www.FIRST.dk).
- Aug.-Oct. 2006 and May-July 2010: Paternal leaves
- 2000-2003: Head of Master of Science and Masters study programme in Internet and Software Technology, ITU.
- Oct. 2000 – 2002: Assistant Professor, ITU.
- Oct. 1999 – Oct. 2000: Post Doc (Resource Constrained Embedded Systems), ITU.
- Aug. 1995 – Aug. 1999: PhD Scholarship (Danish National Research Foundation), BRICS, Daimi, Aarhus University.

### Research Grants (Present projects)

- 2008 – 2012: Principal investigator on the *Trustworthy Pervasive Healthcare Processes* (www.TrustCare.eu) project, supported by the Danish Research Agency (8.4MDKK, grant no.: 2106-07-0019), ITU and Result-maker A/S (industrial partner).

- 2007 – 2011: Principal investigator on the *Computer Supported Mobile Adaptive Business Processes* (www.CosmoBiz.org) project, supported by the Danish Research Agency (5.2MDKK, grant no.: 274-06-0415), ITU and Microsoft Development Center Copenhagen (industrial partner).
- 2009 – 2013: Co-investigator on the *Services in Context: Jangling Genies (Genie)* project, joint with Peking University, Beijing, China.

#### Research Grants (Past projects)

- 2006 – 2008: Co-investigator on the *Calculi for Mobile Security* project, funded by the Danish Research Agency (grant no.: 272-05-0258).
- Jan. 2004 – 2008: Co-investigator on the Bigraphical Programming Languages (BPL) project supported by the Danish Research Agency (5.6MDKK, grant no.: 2059-03-0031) and ITU.

#### Knowledge Networks and Groups

- 2010 – present : Head of interest group for *Processes and IT* within the InfinIT innovation network (www.infinet.dk)

#### Longer Research Visits

- Feb. 1998 – Jun. 1998: Laboratory for Foundations of Computer Science (LFCS), University of Edinburgh. (Hosts: Gordon Plotkin and Samson Abramsky).
- Sep. 1998: School of Computer Science, McGill University, Montreal (Host: Prakash Panangaden).

**Scientific Focus Areas:** Formal models for concurrent, embedded, mobile and distributed systems and applications to trustworthy, reliable and adaptable pervasive and process-aware information systems, e.g. cross-organizational business process and case management systems.

**PhD and PostDoc Supervision** *Present PostDocs:* Søren Debois (Genie project). *Past PostDocs:* Mikkel Bundgaard, Geoffrey Washburn, and Magnus Nilsson. *Present PhD students:* Hugo A. Lopez (ITU and Resultmaker), Espen Højsgaard (ITU, CosmoBiz project), Raghava Rao Mukkamala (ITU, TrustCare project), Lasse Nielsen (co-supervised with Fritz Henglein, DIKU, TrustCare project), Maxime Beauquier (co-supervised with Carsten Schurmann, ITU, TrustCare project), Gian Perrone (ITU, Genie project) and Francesco Zanitti (ITU, Genie project). *Past PhD Students:* Karen Marie Lyng (co-supervised with Finn Kensing, DIKU, Resultmaker), Søren Debois (co-supervised with Lars Birkedal, ITU, BPL project), Mikkel Bundgaard (ITU).

**Publications:** More than 40 peer-reviewed publications (3 in international scientific journals). According to Google Scholar (Sep., 2011) my H Index is 14.

**Selected publications (highlights)**

- [1] Lars Birkedal, Søren Debois, Ebbe Elsborg, Thomas Hildebrandt, Henning Niss, *Biographical Models of Context-aware Systems*, In Proceedings of FoSSaCS, Vienna, Austria, 2006. BPL Project. (Citations 56).
- [2] Jens Christian Godskesen, Thomas Hildebrandt, and Vladimiro Sassone. *A Calculus of Mobile Resources*. In Proceedings of CONCUR 2002, LNCS 2421, 2002. (Citations 52)
- [3] L. Birkedal, S. Debois, T. Hildebrandt *Sortings for Reactive Systems*. In Proceedings of CONCUR 2006, Bonn, Germany, LNCS 4137, August 27-30, 2006. BPL Project. (Citations 22)
- [4] Thomas Hildebrandt, Henning Niss and Martin Olsen *Formalising Business Process Execution with Bigraphs and Reactive XML*, In Proceedings of COORDINATION 2006, Bologna, Italy, LNCS 4038, June, 2006. (Citations 20, all versions)
- [5] Thomas Troels Hildebrandt. *Towards Categorical Models for Fairness: Fully Abstract Presheaf Semantics of SCCS with Finite Delay*. Journal of TCS, volume 294 (1/2), pp. 151-181, 2003. (Citations 16, all versions)
- [6] Thomas Troels Hildebrandt, Prakash Panangaden, and Glynn Winskel. *A Relational Model of Non-deterministic Dataflow*. Journal of MSCS, vol. 14, 2004. (Citations 15, all versions)
- [7] Thomas Hildebrandt and Raghava Rao Mukkamala. *Declarative Event-Based Workflow as Distributed Dynamic Condition Response Graphs*. In proceedings of PLACES 2010, Paphos, Cyprus, EPTCS, March, 2010. (Citations 14, all versions)
- [8] Thomas Hildebrandt, Raghava Rao Mukkamala and Tijs Slaats. *Safe Distribution of Declarative Processes* In Proceedings of 9th International Conference on Software Engineering and Formal Methods, LNCS 7041, November 14-18, 2011 Montevideo, Uruguay (Citations 1)

**Recent Invited Research Presentations:**

- *Contracts as Dynamic Condition Response Graphs*, Invited Talk at Fifth Workshop on Formal Languages and Analysis of Contract-Oriented Software, Malaga, Spain, Sep, 2011
- *Sorting out Higher-order Contexts by playing Games with the Int-construction*, Computer Science Seminars, University of Leicester, UK, Feb, 2009
- *Polarized and Higher-order Bigraphs from Geometry of Interaction*, CHOCO project meeting, Lyon, France, June, 2008
- *Bigraphs and Distributed Reactive XML - an XML-centric model of computation?*, Computer Science Seminar, University of Brighton, UK, 2005

- *A Bigraphical Programming Environment - contributing to the UK grand challenge on Science for Global Ubiquitous Computing*, Departmental talk, Dept. of Computer Science, University of Birmingham, UK, 2005
- *Higher-Order Mobile Embedded Resources*, Dagstuhl seminar 04241, Germany, 2004.

**Grant evaluation, PhD thesis evaluation, Program Chairs, Committees and Refereeing** External evaluator on research grant applications in France and Netherlands. In committees for PhD thesis evaluation in Paris l'Ecole Polytechnique, University of Cambridge, Aarhus, Aalborg and ITU Copenhagen. Program chair on EXPRESS'07 and EXPRESS'08 (International Workshop on Expressiveness in Concurrency). Program Committee member on international conferences and symposia BPM 2012, MFPS 2010, CONCUR 2009, COORDINATION 2009, TGC 2008, and several workshops including FHIES 2011, WS-FM 2011, PNSE'12 and '10, DMC 2009, ORGMOD 2009, ICE'08-'10, CPN '06-'09, ICECCS 2009, International Workshop on Combining Theory and Systems Building in Pervasive Computing, EXPRESS'05, 3rd EATCS Workshop in the Foundations of Global Computing (2004), and Categorical Methods for Concurrency, Interaction and Mobility (2002-2004). Refereeing for MSCS, TCS, Information and Computation, TOPLAS, The Computer Journal (Oxford University Press), Journal of Logic and Computation, CONCUR, LICS, POPL, FST&TCS, ICALP, FOSSACS, MFCS, MFPS, ICFL, CTCS, CALCO, RTA, CAV, PADO-II, ESOP, TAMC, and several workshops.

## Popular Science Communication and Appearances in Press

1. *Sagsbehandlere drukner i computerbøvl*, dr.dk, June 16th, 2011
2. *Sådan vil din GPS forandre din mobil-brug*, Computerworld Online (computerworld.dk), December 28th, 2010.
3. *IT-Universitetet: Objekter er yt, processer er in*, Version2 Online (version2.dk), December 28th, 2009.
4. *Nutidens it er forældet*, NewsMarket Online, December 28th, og Presswire online 23th December, 2009.
5. *Forsker kritiserer forældede it-løsninger*, ComOn Online, December 23th, 2009.
6. *En gang på nettet, altid på nettet*. Interview in chapter of the book: "Den åbne dagbog - unges brug af nettet", ISBN 9788792208897, 2008.
7. *Sæt strøm til rutinerne*. Interview in "Momentum", Microsoft Danmark, September/08.
8. *Pas på Dankortet*, TV2-øst web news, 8pm, April 9th, 2006

9. *Dankort svindel*, TV2-øst. 7:30pm television news, April 9th, 2006.
10. *Karriere som ph.d. i erhvervslivet?*, readIT, February 1st, 2005
11. *Datalogiens store udfordringer: Allestedsnærværende computere*, Harddisken P1, Januar 15th, 2005
12. *Allestedsnærværende computere*, DR Videnskab+IT (online), Januar 5th, 2005
13. *Category Theory and Computer Science at ITU*, readIT, October 1st, 2004
14. *ITU startup aims to revolutionize live-streaming technology*, readIT, May 25th, 2004