Curriculum Vitae: Hélène Kirchner

Birth: 25 September 1952, FRANCE
Married, 4 children.

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Education

1985 :	Thèse d'Etat in Computer Science, University of Nancy 1.
1982 :	Thèse de 3eme cycle in Computer Science, University of Nancy 1.
1980 :	Diplome d'Etudes Approfondies (DEA) d'Informatique, University of Nancy 1.
1979 :	Maitrise d'Informatique, University of Strasbourg
1977 :	CAPES de Mathématiques
1975 :	Maitrise de Mathématiques, University of Paris 6.

Employment

From 1975 to 1979, Professor of mathematics at Douala (Cameroun)and Strasbourg (France).
From 1982 to 1995, Chargée de Recherche au CNRS.
In 1985-86, detached at Stanford University for a Postdoctoral fellowship from CSLI (Center for the Study of Langage and Information)
From october 1995, Directeur de Recherche (DR2 then DR1 in 2003) au CNRS.
Laboratory: CRIN URA 262, then LORIA UMR 7503 (Nancy).
From february 2007 to january 2010, Seconded to INRIA. From february 2010, Directeur de Recherche (DR1, then DR0) at Inria.

Responsibilities

2010 - 2015	:	Head of International Affairs Department at Inria.
2007-10	:	Deputy scientific director at INRIA.
2001-06	:	Director of LORIA and INRIA Lorraine.
2000-06	:	Scientific leader of the Pôle de Recherche Scientifique et Technologique Lorrain "Intelligence Logicielle"
1997-00	:	Scientific leader of the Protheo project team of the UMR LORIA, common to CNRS, INRIA, Universities of Nancy.
1998-00	:	Member of Conseil de Direction of LORIA.
		Member of Comité des Projets of LORIA and INRIA-Lorraine.
		Member of Conseil de Laboratoire of LORIA.
1996-97	:	Responsible of the department LPCA
		(Logiques, Preuves, Contraintes et Algorithmes)
		Member of the Commission Scientifique of CRIN,

Research Themas

- Computation and deduction: rewrite systems and applications, constraint solving, com-

bination of solvers or decision procedures, theorem proving with constraints, strategies, deduction modulo.
- Programming langages: algebraic and logic programming, constraint logic programming, rule-based programming, compilation.
- Formal specifications, software validation, security: algebraic specifications, rewriting logic, proofs of program properties, security policies.

Publications
2 theses, editor of 9 LNCS, LNAI, ENTCS, EPTCS proceedings,
6 special issues of the journals *Theoretical Computer Science, Electronic Notes in Theoretical Computer Science, Mathematics and Artificial Intelligence, Applicable Algebra in Engineering, Communication and Computation.*
25 articles in journals(*ACM Transactions Of Computational Logic, SIAM Journal of Computing, Journal of Functional Programming, Theoretical Computer Science, Journal of Logic Programming, Journal of Symbolic Computations, Computer Journal, Science of Computer Programming,...*),
13 book chapters (MIT Press, Kluwer, AMS, IFIP and LNCS),
more than 75 publications in international conferences,
various publications in international workshops.

Software
Participation in the design of:
Reveur-3 and Narrower, extensions of the rewrite laboratory REVE (Nancy and MIT),
OBJ-3, a logic programming language based on rewriting techniques (SRI international),
ELAN (http:elan.loria.fr), a rule-based environment for specifying and prototyping constraint solvers, theorem provers, deduction systems, and for experimenting their combination (Nancy),
GasEl, a generator of kinetics reactions mechanisms in chemistry (Nancy),
CARIBOO, a termination proof tool for rule-based programming languages (Nancy),
PORGY, an environment for Interactive Analysis and Visualisation of Port Graph Rewriting Systems (Bordeaux).

Teaching in Computer Science

2014	:	Lecturer at International School in Rewriting 2014 "Strategies in Rewriting"
2008	:	Lecturer at CARI 2008 (9e Colloque Africain sur la Recherche en Informatique et en Mathématiques Appliquées) "Rewriting techniques and transformation"
2008	:	Lecturer at Tsinghua University, Beijing, april 2008 (15h) "Rewriting - Computation and Deduction".
2001	:	Tutorial at 13th European Summer School in Logic, Language and Information ESSLLI 2001, Helsinki, Finland, 13-24 August, 2001. "Rule-based computation and deduction"
1980-82	:	Teaching assistant at the University of Nancy.
1983-00	:	Lecturer at the DEA d'Informatique at the University of Nancy.

Students: 12 master students 1895-2000, 14 Phd students 1990-2013, 2 post-docs 2008-2010:
- PhDs: Christophe Ringeissen (1993), Claus Hintermeier (1995), Thomas Genet (1998), Peter Borovanský (1998), Pierre-Etienne Moreau (1999), Hubert Dubois (2001), Quang-

Huy Nguyen (2002), Olivier Fissore (2003), Liliana-Mariana Ibanescu (2004), Duc Khanh Tran (2006), Fabrice Nahon (2007), Anderson Santana de Oliveira (2008), Oana Maria Andrei (2008), Pengfei Liu (2013).
Post-docs: Hejiao Huang (2008-2009), Clément Hurlin (2009-2010).

Invited talks

2016	:	Invited talk at WRLA'2016, Eindhoven, The Netherlands, April 2016.
		"Labeled Graphs Rewriting Meets With Social Networks"
2015	:	Invited talk at RDP'2015 (RTA+TLCA), Warsaw, Poland, july 2015.
		"Port Graphs, Rules and Strategies for Dynamic Data Analytics"
2014	:	Grand Professor Talk, cfAED, Dresden, Germany, november 2014.
	:	"Modeling dynamic complex networks with Graphs, Rules and Strategies"
2013	:	Grand Professor Talk, cfAED, Dresden, Germany, august 2013.
	:	"Computation and deduction with rewriting and strategies"
	:	" Presentation and international strategy of Inria, french institute in ICST"
2012	:	Joint invited talk at IJCAR'2012 workshops IWS, SWARM and VERIFY,
		Manchester, UK, july 2012: "A rewriting point of view on strategies"
2011	:	Participation to Dagstuhl Seminar "Security and Rewriting", august 2011.
		"Formal Specification and Analysis of Security Policies "
2009	:	Invited Talk at Symposium in Honor of Peter Mosses, Udine, Italy, september 2009.
		"Component-based Security Policy Design with Colored Petri Nets"
	:	Joint Invited talk at RDP'09 workshops RULE'09 and WRS'09, Brasilia, Bresil, june 2009.
		" From Abstract Strategies to Strategic Rewriting".
	:	Invited talk at TermGraph'09, ETAPS workshop, York, UK, march 2009.
		"Port Graph Calculus and its Application to Autonomic Computing"
2008	:	Invited talks at the Conference *Graph Theory, Computational Intelligence and Thought*
		"Computer Security: Software Issues, Problems and Challenges",
		"A Higher-Order Graph Calculus for Autonomic Computing",
		in Honor of Martin Golumbic, Israel, september 2008.
2006	:	Invited Conf. Joseph Goguen Festschrift, San Diego, USA, june 2006
		"Non-intrusive Formal Methods and Strategic Programming for a Chemical Application"
2005	:	Inv. Conf. Deduction Workshop in Honor of H. Ganzinger, Saarbrucken, Germany,
		3-4 june 2005: "Narrowing Based Inductive Proof Search"
2005	:	Inv.Conf. Associazione Italiana per l'Informatica ed il Calcolo Automatico,
		Italy, 5-7 oct. 2005
2004	:	Invited Conference at ASIAN'04 (Ninth Asian Computer Science Conference),
		Chiangmai University, Thailand, 8-10 december, 2004.
2003	:	Invited conference at CADE-19 (International Conference on Automated Deduction),
		Miami, 28 july-2 august, 2003:
		"Proof search and proof check for equational and inductive theorems".

2002	:	Invited conference at Workshop for Thirty Five years of 35 years of Automath, Herriot-Watt University, Edinburgh, 11-13 April, 2002. "Proof assistants and rewriting techniques: an experiment with Coq and ELAN".
2001	:	Invited talk at the Cyber Assist International Symposium, mars 2001, Tokyo. "Prototyping and verification with rules and strategies"
2000	:	Invited talk at 3rd Int. Workshop on Rewriting Logic and Applications WRLA'2000 sept. 2000, Japon: "Termination and normalisation under strategies–Proofs in ELAN".
2000	:	Invited talk at AMiLP workshop (Algebric Methods in Language Processing) Iowa City (USA):"Objects, constraints, rules and strategies in ELAN".
2000	:	Invited talk at Winter Workshop in Logics, Types and Rewriting, Edinburgh. "Algebraic Specifications,Higher-Order Types and Set-Theoretic Models".
1999	:	Invited talk at journées BUG-SEE, Lille. "L'environnement CoFI pour les spécifications formelles algébriques".
1999	:	Invited talk at JFPL'99, Lyon. "Le système ELAN"
1996	:	Invited talk at 4th Symposium on Mathematics and Artificial Intelligence "Prototyping Deduction with Constraints in Rewriting Logic"
1996	:	Invited talk at AMS Short Course on Artificial Intelligence "Orderings in Automated Theorem Proving"
1994	:	Invited talk at Ecole de Printemps d'Informatique Théorique "On the use of constraints in Automated Deduction"
1993	:	Invited talk at Ecole de Printemps d'Informatique Théorique. "Extensions de la réécriture"
1992	:	Tutorial at CADE 11: "Term rewriting techniques for automated theorem proving"
1988	:	Invited talk at 1st International Workshop *Algebraic and Logic Programming* on OBJ-3.

Editorial boards and Program committees

- Co-Editor of the journal *Annals of Mathematics and Artificial Intelligence*,
- Member of the Editorial board of the journal *Computing and Informatics*,
Logical Methods in Computer Science (LMCS).
- Guest Editor for special issues of the journals *Annals of Mathematics and Artificial Intelligence, Applicable Algebra in Engineering, Communication and Computation, Theoretical Computer Science*.
- Participation to program committees of WRLA 2016, CADE 2013, RTA 2013, IJCAR 2012, Turing100 (Alan Turing Centenary Conference 2012), SCSS2012, WRS 2011, DCM 2011, PPDP 2011, IWS 2010 (Int. Workshop on Strategies, co-chair 2010), AMAST 2010, SoICT 2010, PPDP 2009, AMAST 2008, WRS'08, LPAR'07, RTA'07, IJCAR'06, LPAR'05, ASIAN'04, RTA'04, CSL'03, IJCAI'03, AMAST 2002 (co-chair), FROCOS 2002, CP 2001, AMAST 2000, FROCOS'2000 (co-chair), FM-TOOLS 2000, Calculemus 2000, WRLA'2000, CADE-99, WRLA'98 (co-chair), CADE-98 (co-chair), RTA 97, CAAP 97, MFCS 97, CAAP 96 (chair), AMAST 96, JICSLP 96, Symposium on Artificial Intelligence and Mathematics 92-94-96-98-2000-2006, FROCOS 96, AMAST 95, JFPL 95, CADE 94, WADT 94, CCL 94 (publicity chair), ESOP'92, ALP'92-90 (co-chair).

Projects and contracts

Participation to national projects (animation of working groups of GDR-PRC Programmation, GDR-PRC AMI).

Participation to european projects CCL et COMPASS (Esprit BRA), SOL et CON-

SOLE (CHM), COMPULOG (réseau d'excellence), MIND (european consortium), ERCIM working groups *Constraints* and *Programming Languages Technology*.

Responsible of the Tools group of the Esprit Working Group CoFI (1998-2000) (Common Framework Initiative for algebraic specification and development of software).

Participation to CNRS-NSF contracts with SRI International (1987-89) and with Stony Brook University (1994-96).

Member of IFIP working groups WG 1.3 (Foundations of Systems Specifications), and WG 1.6 (Term Rewriting).

Expertise
- Member of Scientific Committees of African Excellence Centers CETIC (Cameroun) and MITIC (Senegal) since 2015.
- Member of Scientific Committee of BRGM since 2014.
- Member of Scientific Committee of ENS Rennes since 2014 - Co-Chair of Comité de Pilotage of ANR program "Ingénierie Numérique & Sécurité" 2011-2012.
- Member of Comité de Pilotage of ANR program "ARPEGE" in 2010, "Domaines Emergents" (DEFIS) in 2008-2009, "Concepts Systèmes et Outils pour la Sécurité Globale" (CSOG) in 2008-2010. - Member of ANR Scientific Comitees
- Expert for ANR Programs "Blancs" and "Jeunes Cherchuers" in 2007-2008.
- Member of Dagstuhl Scientific Directorate (2002-2007).
- Member of Comité National du CNRS (section 07) from september 2000 to september 2001.
- Member of recruitment commissions at Universities.
- Member of Comités d'Evaluation of french laboratories (LRI, LSV LIFC, Leibniz, LAAS,...).
- Member of Evaluation Committee of the Institut for Computer Science at University of Munich.
- Expertise of promotions (associate professors with tenure) for american or european universities.
- Member of more than 50 PhD and Habilitation committees.

Distinctions
2015-	:	Member of Conseil du HCERES (Haut Conseil de l'évaluation de la recherche et de l'enseignement supérieur)
2012-	:	Grand Professor on formal methods and verification of the German Excellence Cluster (Center for Advancing Electronics Dresden) of TU Dresden
2008	:	Membre Emérite de la SEE
2007	:	Chevalier de l'Ordre National du Mérite
1998	:	Best Paper of EAPLS for the conferences PLILP-ALP-SAS with P.-E.Moreau
1987	:	CNRS gave a silver medal to the Eureca group.

Others
Member of the Board of Informatics Europe.

Member of AAR(Association of Automated Reasoning), EAPLS (European Association for Programming Languages and Systems), and EATCS (European Association in Theoretical Computer Science).

Member of the french association SPECIF of computer scientists.