

## Proceedings 8th International Workshop on Security Issues in Concurrency (SecCo, Paris, France, August 30, 2010)

**Citation for published version (APA):**

Chatzikokolakis, K., & Cortier, V. (Eds.) (2011). *Proceedings 8th International Workshop on Security Issues in Concurrency (SecCo, Paris, France, August 30, 2010)*. (Electronic Proceedings in Theoretical Computer Science; Vol. 51). EPTCS. <https://doi.org/10.4204/EPTCS.51>

**DOI:**

[10.4204/EPTCS.51](https://doi.org/10.4204/EPTCS.51)

**Document status and date:**

Published: 01/01/2011

**Document Version:**

Publisher's PDF, also known as Version of Record (includes final page, issue and volume numbers)

**Please check the document version of this publication:**

- A submitted manuscript is the version of the article upon submission and before peer-review. There can be important differences between the submitted version and the official published version of record. People interested in the research are advised to contact the author for the final version of the publication, or visit the DOI to the publisher's website.
- The final author version and the galley proof are versions of the publication after peer review.
- The final published version features the final layout of the paper including the volume, issue and page numbers.

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*arXiv:1102.5161v1 [cs.CR] 25 Feb 2011*

DOI: 10.4204/EPTCS.51

ISSN: 2075-2180

# EPTCS 51

## Proceedings 8th International Workshop on Security Issues in Concurrency

Paris, France, 30th August 2010

Edited by: Konstantinos Chatzikokolakis and Véronique Cortier

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## Preface

This volume contains the proceedings of the 8th Workshop on Security Issues in Concurrency (SecCo'10). The workshop was held in Paris, France on August 30th, 2010, as a satellite workshop of CONCUR'10. Previous editions of this workshop have been organized in Eindhoven (2003), London (2004), San Francisco (2005), Lisbon (2007), Toronto (2008) and Bologna (2009).

The aim of the SecCo workshop series is to cover the gap between the security and the concurrency communities. More precisely, the workshop promotes the exchange of ideas, trying to focus on common interests and stimulating discussions on central research questions. In particular, we called for papers dealing with security issues (such as authentication, integrity, privacy, confidentiality, access control, denial of service, service availability, safety aspects, fault tolerance, trust, language-based security, probabilistic and information theoretic models) in emerging fields like web services, mobile ad-hoc networks, agent-based infrastructures, peer-to-peer systems, context-aware computing, global/ubiquitous/pervasive computing.

We received 4 submissions (an unusually low number for SecCo), including one short paper. However all papers were of good quality; the three long papers were accepted for this volume (one with corrections) and the short one was presented at the workshop. We also had two great invited talks by Jean Goubault-Larrecq and Sjouke Mauw. The reviews have been carried out by the program committee of SecCo'10, which consisted of

- Kostas Chatzikokolakis, (University of Eindhoven, Netherlands; co-chair)

Véronique Cortier, (LORIA - CNRS, France; co-chair)

- Cas Cremers, (ETH Zurich, Switzerland)
- Jerry den Hartog, (University of Eindhoven, Netherlands)
- Riccardo Focardi, (Universita Ca' Foscari di Venezia, Italy)
- Cédric Fournet, (Microsoft Cambridge, UK)
- Joshua Guttman, (Worcester Polytechnic Institute, USA)
- Jun Pang, (University of Luxembourg, Luxembourg)
- Michael Rusinowitch, (LORIA - INRIA Lorraine, France)
- Steve Schneider, (University of Surrey, UK)

We would like to thank all the persons that contributed to SecCo'10. First of all, the program committee, the invited speakers, the authors and all the participants that attended the workshop. We are also very grateful to the CONCUR'10 organizers, for taking care of all the local organization. We thank the editors of EPTCS (who will publish these proceedings electronically in the EPTCS series).

*Eindhoven and Nancy, August 5, 2010*

*Kostas Chatzikokolakis  
Véronique Cortier*

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## "Logic Wins!"

**Jean Goubault-Larrecq** (*ENS Cachan, France*)

Clever algorithm design is sometimes superseded by simple encodings into logic. In particular, we claim that it is particularly simple to encode sound abstractions of security protocols in H1, a decidable fragment of first-order Horn clauses. After reviewing a variant of Nielson, Nielson and Seidl's work on H1 and the spi-calculus, we describe a verification algorithm designed with the same spirit, and which applies to hardware circuit descriptions written in VHDL. We shall describe the new challenges posed by VHDL, in particular the particular semantics of 'wait' instructions, and the effect of signal updates and of timeouts.