

# SPIN96 DIMACS Workshop

## Table of Contents

### Preface

### Keynote Presentation

Automated Verification = Logic + Algorithmics.  
**Moshe Vardi** (Rice University, USA)

### Papers (in order of presentation)

- p.1 Modelling and Analysis of a Collision Avoidance Protocol using SPIN and UPPAAL.  
**Henrik Ejersbo Jensen, Kim Larsen, and Arne Skou**  
(Aalborg University, Denmark)
- Proposed Analysis of Synchronous Dual Distributed Systems.  
**Frank Schneider** (NASA/JPL, Fairmont, WV, USA)
- p.21 Memory efficient storage in SPIN.  
**Willem Visser** (Univ. of Manchester, England)
- p.36 Dynamic analysis of SA/RT Models Using SPIN.  
**Javier Tuya, Jose de Diego, Claudio de la Riva, and Jose Corrales**  
(Univ. de Oviedo, Spain)
- p.51 The Application of PROMELA and SPIN in the BOS Project.  
**Pim Kars** (Twente Univ., The Netherlands)
- p.60 Modeling and verification of the ITU-T multipoint communication service with SPIN.  
**P. Merino, J.M. Troya** (Univ. de Malaga, Spain)
- p.72 Creating Implementations from PROMELA Models.  
**Siegfried Loeffler** (Hewlett-Packard, Bristol, England),  
**Ahmed Serhouchni** (ENST, Ecole Nationale Supérieure des Telecommunications,  
Paris, France)
- p.81 On Nested Depth-First Search.  
**Gerard J. Holzmann, Doron Peled, Mihalis Yannakakis** (Bell Labs, USA)
- p.90 State space compression in SPIN with GETSs.  
**Jean-Charles Gregoire** (INRS, Univ. de Quebec, Canada)
- p.109 Protocol verification with Reactive PROMELA/RSPIN  
**Elie Najm** (ENST, Ecole Nationale Supérieure des Telecommunications,  
Paris, France),  
**Frank Olsen** (CNET, Centre National d'Études des Telecommunications,  
Issy-Les-Moulineaux, France)
- p.129 Implementing and Verifying Scenario-Based specifications using PROMELA/SPIN.  
**Stefan Leue** (Univ. Waterloo, Canada), **Peter Ladkin** (Univ. Bielefeld, Germany)

p.147 Simulation and Validation Tool for self-stabilizing protocols.  
**Sandeep Shukla, Daniel J. Rosenkrantz, S.S. Ravi** (Univ. at Albany, NY, USA)

p.163 Not Checking for Closure Under Stuttering.  
**Gerard J. Holzmann, Orna Kupferman** (Bell Labs, USA)

#### **Demos**

D1. The Wheel environment for SPIN.  
**F.J. Lin** (Bellcore, USA)

D2. Real-Time SPIN.  
**Stavros Tripakis** (Verimag/Univ. of Grenoble, France)

D3. PROMELA2C Translator.  
**Siegfried Loeffler** (Hewlett-Packard, Bristol, England)

D4. RSPIN.  
**Frank Olsen** (CNET, Centre National d'Etudes des Telecommunications, Issy-Les-Moulineaux, France)

#### **Complementary Material**

p.171 Exploration of the syntactical modeling capabilities in PROMELA/SPIN of synergistic distributed systems based on any type of omega-automata.  
**Charles R. Paez, and J.N. Ruiz** (Univ. of Los Andes, Venezuela)

p.175 Outline for an operational semantics definition of PROMELA.  
**V. Natarajan** (North Carolina State University), and  
**Gerard J. Holzmann** (Bell Labs, USA).