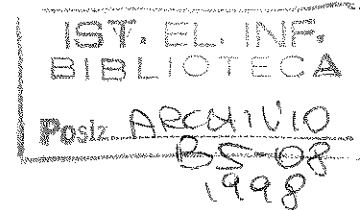


BS-08  
1998



# Tool demonstrations Proceedings

**SPIN'98 workshop**  
*(2 November 1998)*



**Session on Educational Case Studies in Protocols**  
*(3 November 1998)*

**FORTE/PSTV'98 Conference**  
*(4-6 November 1998)*



# FORMAL VERIFICATION OF FAULT TOLERANT MECHANISMS BY MODEL-CHECKING

Demonstrator: Alessandro Fantechi

Presented at: FORTE/PSTV'98 Conference

Schedule: From Tuesday 3rd to Friday 6th November (Room B206)

Software used: JACK-2

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**Abstract:** The JACK environment combines different specification and verification tools, independently developed at different academic sites (IEI-CNR in Pisa, Italy, University of Rome, Italy and INRIA Sophia-Antipolis, France). The environment is mainly based on the use of a common format for the representation of finite state labelled transition systems, FC2. JACK has been successfully tested on several case studies, including some industrial ones.

JACK-2 upgrades the functionalities of JACK by means of a new BDD-based model checker, and other new verification tools, accessible through a new common user interface, developed in Java.

The demo will show the use of the verification tools on a case study derived from the fault-tolerance mechanisms analysed inside the ESPRIT GUARDS project.

Through this case study the different features of the JACK-2 environment are explored, exploiting the new user-interface.

**Required Software:** JDK 1.1

**Distribution:** public license for academic purposes, Solaris 2.5.1+

**For further information:**

<http://repl.iei.pi.cnr.it/projects/JACK/JACK2/Jack2.html>

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