

# Proof Carrying Code 2009

## 3rd International Workshop on Proof Carrying Code and Software Certification

August 15, 2009, Los Angeles, California, USA,  
Affiliated with LICS'09

<http://ti.arc.nasa.gov/event/pcc09/>

### SCOPE

Software certification demonstrates the reliability, safety, or security of software systems in such a way that it can be checked by an independent authority with minimal trust in the techniques and tools used in the certification process itself. It can build on existing validation and verification (V&V) techniques but introduces the notion of explicit software certificates, which contain all the information necessary for an independent assessment of the demonstrated properties. One such example is proof-carrying code (PCC) which is an important and distinctive approach to enhancing trust in programs. It provides a practical framework for independent assurance of program behaviour; especially where source code is not available, or the code author and user are unknown to each other.

The workshop will address theoretical foundations of logic-based software certification as well as practical examples and work on alternative application domains. Here “certificate” is construed broadly, to include not just mathematical derivations and proofs but also safety and assurance cases, or any formal evidence that supports the semantic analysis of programs: that is, evidence about an intrinsic property of code and its behaviour that can be independently checked by any user, intermediary, or third party. These guarantees mean that software certificates raise trust in the code itself, distinct from and complementary to any existing trust in the creator of the code, the process used to produce it, or its distributor.

### SUBMISSIONS

Submitted papers must be formatted in the EasyChair class style. Two types of submissions are solicited:

- Standard papers (10 pages) describing novel research results.
- Short papers (5 pages) describing a novel idea that is work-in progress.

Additional material intended for the referees but not for publication in the final version may be placed in a clearly marked appendix that is not included in the page limit. Authors are invited to submit their papers electronically, in PDF format via the EasyChair submission web page. All submissions will be fully reviewed.

### PUBLICATIONS

Proceedings will be made available in electronic format as a technical report. There will be a follow-up special issue of the Higher Order and Symbolic Computation on the topics of proof-carrying code and software certification (more details will be announced at the workshop).



### Co-chairs

Ewen Denney, RIACS/NASA Ames  
Thomas Jensen, IRISA/CNRS

### Program Committee

David Aspinall, Univ. Edinburgh  
Gilles Barthe, IMDEA Software  
Bernd Fischer, Univ. Southampton  
Sofia Guerra, Adelard  
Kelly Hayhurst, NASA Langley  
David Pichardie, INRIA  
Germán Puebla, Tech. Univ. Madrid  
Ian Stark, Univ. Edinburgh

### Important Dates

Papers due: June 8  
Notification of acceptance: June 30  
Final version due: July 10  
Workshop: August 15

### Invited Speakers

Kelly Hayhurst, NASA Langley  
Andrew W. Appel, Princeton University