



Proceedings of the
Fifth International Workshop on
Foundations and Techniques for
Open source Software Certification
(OpennCert 2011)

Preface

2 pages

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Over the past decade, the Free/Libre/Open Source Software (FLOSS) phenomenon has had a global impact on the way software systems and software-based services are developed, distributed and deployed. Widely acknowledged benefits of FLOSS include reliability, low development and maintenance costs, as well as rapid code turnover. Linux distributions, Apache and MySQL server, among many other examples, can be mentioned as a testimony to its success and resilience.

Such a success has brought with it an increasing interest to use FLOSS for complex and industrial-strength applications. However, state-of-the-art OSS, by the very nature of its open, unconventional, distributed development model, make software quality assessment, let alone full certification, particularly hard to achieve and raises important challenges both from the technical/methodological and the managerial points of view.

In such a context, the aim of the OpenCert series of workshops is to bring together researchers from the academia and the industry interested in the quality assessment of FLOSS, and ultimately provide a platform for the establishment of a coherent certification process for FLOSS.

The 1st International Workshop on Foundations and Techniques for Open Source Software Certification (OpenCert 2007) was held on 31 March 2007 in Braga, Portugal, as a satellite event of ETAPS 2007. From then on OpenCert run regularly every year. In 2008, jointly with the *International Workshop on Foundations and Techniques bringing together Free/Libre Open Source Software and Formal Methods* (FLOSS-FM 2008), was held as a satellite event of OSS 2008, in Mlian, Italy. In 2009 it was organised again as a satellite event of ETAPS, in York, United Kingdom. Finally, in 2010, the 4th OpenCert workshop took place in Pisa, Italy, as a satellite event of SEFM. The post-proceedings were published in volume 33 of the *Electronic Communications of the EASST*. A special issue collecting the most significant papers of previous workshops is currently under preparation to appear in *Science of Computer Programming*.

This volume contains the post-proceedings of the *5th International Workshop on Foundations and Techniques for Open Source Software Certification* (OpenCert 2011) held on 15 November 2011, in Montevideo, Uruguay, as a satellite event of SEFM'2011, the *9th International Conference on Software Engineering and Formal Methods*. It includes a total of four regular papers and two short contributions, which were selected among ten submissions, each of them reviewed by at least two Program Committee members. It also includes the full text of two invited talks, one by Antonio Cerone, from UNU-IIST, and another by Ezequiel Bazan Eixarch, Gustavo Bertarte and Carlos Luna, from Universidad Nacional de Rosario, Argentina, and Universidad de la República, Uruguay, respectively.

The editors would like to express their gratitude to all members of the Program Committee for their hard work and support. The result in your hands would not have been possible without their effort and commitment.

Thanks extend, of course, to all members of the SEFM'2011 Organising Committee, in particular to Alberto Pardo, SEFM Conference Chair, who was most helpful in all occasions, and the staff at the Universidad de la República, Montevideo, for their logistical, administrative and technical support.

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