



Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economico sostenibile

AVVISO DI SEMINARIO

6 Marzo 2019 ore 10.00

Centro Ricerche Frascati

Aula "B. Brunelli"



Software Heritage: a common infrastructure for Open Science

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Software is at the heart of our digital society and embodies a growing part of our scientific, technical and organizational knowledge. **Software Heritage** is an open non-profit initiative whose mission is to ensure that this precious body of knowledge will be preserved over time and made available to all. We do this for multiple reasons. To preserve the scientific and technological knowledge embedded in software source code. To allow better software development and reuse for society and industry. To foster better science, building the infrastructure for preserving, sharing and referencing research software, a stepping stone for reproducibility, and a necessary complement to Open Access.

We do this now, because we are at a turning point: the founding fathers are still around, and willing to contribute their knowledge, but only for a limited time. And we face the risk of massive loss of source code developed by the Free and Open Source community, with code hosting sites that shut down when their popularity decreases. We have already collected over 5 billions unique source files from over 88 millions repositories, and organized them into a giant Merkle graph, with full deduplication across all repositories. This allows us to cope with the growth of collaborative software development, and provides a unique vantage point for observing its evolution. Now we call on all stakeholders, from individuals to companies, from public to private entities, to contribute actively to this mission.



A Scuola Normale Superiore alumnus, PhD in Computer Science at the University of Pisa, Roberto Di Cosmo was associate professor at Ecole Normale Supérieure in Paris, and then full professor at University Paris Diderot. He is currently on leave at Inria. Actively involved in research in theoretical computing, his main focus is now on the new scientific problems posed by Free Software. He created the Free Software thematic group of Systematic in 2007, and IRILL, a research structure dedicated to Free and Open Source Software, in 2010. In 2016, he founded Software Heritage (www.softwareheritage.org) to build the universal archive of all the source code publicly available.

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