

# Combining Interactive and Automated Theorem Proving using Why3 (Invited Tutorial)

Jean-Christophe Filliâtre  
CNRS Université Paris Sud  
`jean-christophe.filliatre@lri.fr`

## **Abstract**

Why3 is a platform for deductive program verification. It features a rich logical language with polymorphism, algebraic data types, and inductive predicates. Why3 provides an extensive library of proof task transformations that can be chained to produce a suitable input for a large set of theorem provers, including SMT solvers, TPTP provers, as well as interactive proof assistants. In this tutorial, we show how this technology is used to combine interactive and automated theorem provers in, though not limited to, the context of program verification.