## Auto-active verification using Why3's IDE [F-IDE-18 Keynote Talk]

Jean-Christophe Filliâtre
LRI CNRS Université Paris-Sud Inria
France
Jean-Christophe.Filliatre@lri.fr

Why3 is a platform for deductive program verification. It features a rich language for specification and programming, called WhyML, and relies on external theorem provers, both automated and interactive, to discharge verification conditions. Why3 comes with a dedicated IDE where users edit source files and build proofs interactively using a blend of logical transformations and calls to external theorem provers. In this talk, I will illustrate the typical workflow of program verification using Why3's IDE, focusing on the key features of WhyML, auto-active verification, and proof maintenance.