



**UNIVERSITÀ  
DI TRENTO**

**Dipartimento di  
Matematica**



**PhD in Mathematics**

**“Doc in Progress” and #iorestoacasa are pleased  
to introduce you to**

**Gianluca Redondi**

**University of Trento - FBK**

PhD in Information and Communication Technology

## **Automatic proofs for complex systems**

It is a well-known fact that first-order logic is in general not decidable. However, research in automated theorem proving has produced many efficient tools capable of proving simple statements about mathematics. More than the possibility of obtaining automatically new mathematical results, a major trend of automated reasoning is to apply those techniques for the verification of complex systems, such as computer programs or protocols. In this talk, I will first outline the methods currently adopted in the area of formal verification. Then, I will overview some research challenges and ongoing applications in industry-related projects.



**Thursday, February 24 – at 16:00 CET**

**The seminar will be held both in presence in Seminar Room “-1”  
(Department of Mathematics) and online via Zoom.**

**To join the event, please contact [docinprogress.unitn@gmail.com](mailto:docinprogress.unitn@gmail.com)  
using an institutional e-mail address for both reserving a sit in the  
seminar room or obtaining login credentials.**