

COST action EuroProofNet

Frédéric Blanqui



europroofnet.github.io

What is COST ?

- ▶ COST = COoperation in Science and Technology
- ▶ pan-European intergovernmental framework since 1971
- ▶ Goal: development of scientific and technological networks
- ▶ Website: <https://www.cost.eu/>



COST is supported
by the Horizon 2020
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What is a COST action ?

A COST action can:

- ▶ organize schools and workshops
- ▶ provide travel grants (for days or weeks) to anyone
 - from a participating country
 - who wants to contribute to the goals of the action

A COST action is managed by a core group elected by the representatives of every participating country

What is the goal of EuroProofNet ?

boost the interoperability and usability of proof systems

1. Express new proof systems in the **Dedukti** logical framework
2. Promote the output of checkable proofs from automated provers
3. Make program verification more effective and accessible
4. Gather proofs translated in **Dedukti** into a database
5. Provide tools for searching large libraries of formal proofs
6. Develop the use of machine learning techniques in proofs
7. Develop a modular theory of type theories
8. Develop natural or controlled languages in proof systems

Working groups

EuroProofNet has more than **220 members from 30 countries** (membership is free and open to every one)

1. **Interoperability** 75 (Jesper Cock, Catherine Dubois)
2. **Automated provers** 83 (Pascal Fontaine, Alexander Steen)
3. **Program verification** 120 (Alicia Villanueva, Rodica Condurache)
4. **Libraries of formal proofs** 92 (Claudio Sacerdoti, Gilles Dowek)
5. **Machine learning on proofs** 60 (Cezary Kaliszyk, Peter Koepke)
6. **Type theory** 107 (Benedikt Ahrens, Roussanka Loukanova)

also in the **core group**: Sandra Alves (vice chair), Ornela Dardha and Dmitriy Traytel (science communication), Danijela Simic and Ambrus Kaposi (grant awarding), Luigia Petre and Marija Mihova (training), Anja Petkovic (gender balance)

Plan for 2022

- ▶ January 16, April 1st, June or July 1st:
calls for short-term scientific missions (STSM) proposals
- ▶ **January:** WG3 meeting in Valencia, Spain
- ▶ March or **May:** WG6 meeting in Stockholm, Sweden
- ▶ **June:** Dedukti school & Women in EuroProofNet in Nantes, France (co-located with TYPES)
- ▶ **July:** EuroProofNet-VTSA summer school
- ▶ **August:** WG2 meeting at PAAR in Haifa, Israel (FLOC)
- ▶ **September:** EuroProofNet-AITP conference in Aussois, France
- ▶ September: school on controlled languages in proof assistants in Bonn, Germany

What to do ?

- ▶ Keep in mind that the main goal of the action is

INTEROPERABILITY

- ▶ Contribute to the EPN website (teams, tools, publications)
- ▶ Discuss on <https://epn.zulipchat.com/>
- ▶ Advertise your (virtual) meetings, lectures and seminars
- ▶ Advertise internship, grant and job opportunities
- ▶ Discuss Action or WG activities, meetings and schools for the period November 2022 - October 2023