



# Introduction to Scientific Working (ISW)

Advisor: **Formal Methods Area**

## Motivation

We research mathematical methods and tools to ensure that systems have no functional or security bugs. This includes test case generation, model checking, automatic debugging, and automatic synthesis of systems from properties. Our interests include safe AI and formal side-channel security.

## Example Topics

💡 To be added...  
[first.last@tugraz.at](mailto:first.last@tugraz.at)

## Literature

- > [Bettina Könighofer](#)
- > [Filip Cano](#)
- > [Stefan Pranger](#)
- > [Johannes Haring](#)
- > [Benedikt Maderbacher](#)

## Courses & Deliverables

- |   |
|---|
| <input checked="" type="checkbox"/> <b>Introduction to Scientific Working</b><br>Short report on background<br>Short presentation |
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**Note:** You can select these topics *only* for the ISW course. If you are considering to combine ISW with a bachelor's thesis at ISEC (highly recommended), check the full list of topics: <https://www.isec.tugraz.at/bachelor-thesis>

## Recommended if you're studying

- CS    ICE    SEM

## Prerequisites

- > Interest in **logic, AI, security**
- > (Optional) *Logic and Computability*
- > (Optional) *Machine Learning 1*
- > (Optional) *Information Security*
- > (Optional) *Software Paradigms*

## Advisor Contact

[scos@tugraz.at](mailto:scos@tugraz.at)