



Der Wissenschaftsfonds.



## Research Group focusing on Knowledge Representation and Reasoning

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# Institute of Software Technology

- 11 research groups, eg on
  - software engineering and AI
  - autonomous intelligent systems
  - applied software engineering and AI
  - formal methods for software development
  - discrete and computational geometry
  - distributed computing
  - ...



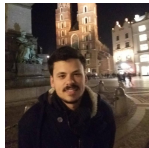
Our group focuses on

## Knowledge Representation and Reasoning

- recently established at TU Graz (last year)
- currently 2 PhD students



Andrei Popescu



Iosif Apostolakis

- previously at TU Wien with



Zeynep G. Saribatur



Adrian Haret

## Formal foundations

complexity analysis, properties



**Algorithm design**

eg SAT technology



Systems for  
(co)NP-hard  
problems



**Experiments**

design, prototyping

### Topics

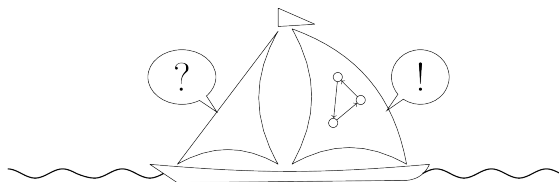
- Computational argumentation
- Inconsistency handling
- Preferential reasoning
- Belief change & Social choice

### Approaches

- Declarative algorithms
- Complexity analysis
- SAT & ASP
- Supporting explainability

## FWF-funded Projects

- A Novel Computational Workflow for Argumentation in AI
- Extending Methods in Belief Change to Advance Dynamics in Argumentation



## Contact

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- Group's webpage  
tugraz.at/institute/ist/research/group-wallner