



First International  
Symposium on the  
Tsetlin Machine

Grimstad / Norway / 20-21 June 2022

# Call for Papers

The emerging paradigm of Tsetlin machines makes a fundamental shift from arithmetic-based to logic-based machine learning. At the core, finite-state machines, based on learning automata, learn patterns using logical clauses, and these constitute a global description of the task learnt. In this way, the Tsetlin machine introduces the concept of logical interpretable learning, where both the learned model and the process of learning are easy to follow and explain. As a result, it reduces the expertise needed to apply ML techniques efficiently in various domains. The paradigm has enabled competitive accuracy, scalability, memory footprint, inference speed, and energy consumption across diverse tasks, including classification, convolution, regression, natural language processing (NLP), and speech understanding.



## Topics of Interest

Topics of interest include (but are not limited to):

- Tsetlin Machines
- Learning automata
- Novel AI Algorithms
- Explainable and Interpretable AI
- Energy-efficient AI Systems Design
- New AI Applications including signal and image processing
- Intelligent Data Preprocessing

## Important Dates

- Paper Submission deadline: March 4, 2022
- Notification to authors: April 22, 2022
- Camera-ready submission deadline: May 20, 2022

## Further information

[www.istm.no](http://www.istm.no)

## Organizers

### General Co-Chairs

- Ole-Cristoffer Granmo, University of Agder, Norway
- Rishad Shafik, Newcastle University, UK

### Program Co-Chairs

- Lei Jiao, University of Agder, Norway
- Vladimir Zadorozhny, University of Pittsburgh, USA

### Local Arrangements Committee

Ole-Christoffer Granmo, University of Agder  
Lei Jiao, University of Agder  
Elisabeth Rasmussen, University of Agder

### Committees

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