

# LINZ 2022

39th Linz Seminar on Fuzzy Set Theory

## Many-Valued Logics: Theory and Applications

Bildungszentrum St. Magdalena, Linz, Austria

June 7-10, 2022

### Program Chairs

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## CALL FOR PAPERS

Since their inception in 1979 the Linz Seminars on Fuzzy Sets have emphasized the development of mathematical aspects of fuzzy sets by bringing together researchers in fuzzy sets and established mathematicians whose work outside the fuzzy setting can provide direction for further research. The philosophy of the seminar has always been to keep it deliberately small and intimate so that informal critical discussions remain central.

LINZ 2022 will be the 39th seminar carrying on this tradition and is devoted to the theme "**Many-Valued Logics: Theory and Applications**". The goal of the seminar is to present and to discuss recent advances of many-valued and mathematical fuzzy logics and their applications in pure and applied fields.

Accordingly, the topics of the Seminar will include but not be limited to:

- Many-valued logic
  - Mathematical fuzzy logic
  - Many-valued modal logics
  - Algebraic and relational semantics
  - First and higher order formalisms and their model theory
  - Proof theory and proof search
  - Fuzzy quantifiers
- Uncertainty and similarity-based logics
  - Probabilistic, possibilistic and other uncertainty logics
  - Uncertainty measures on algebras of fuzzy logic
- Graded logical approaches in Artificial Intelligence
  - Doxastic logics and counterfactuals
  - Integration of fuzzy logics and machine learning
  - Judgment aggregation and computational social choice
  - Argumentation theory

The following invited speakers (in alphabetic order) have already confirmed their participation:

- **Guillermo Badia**, University of Queensland, Australia
- **Libor Běhounek**, University of Ostrava, Czech Republic
- **Christian G. Fermüller**, Vienna University of Technology, Austria
- **Zuzana Haniková**, Czech Academy of Sciences, Czech Republic
- **Gabriella Pigozzi**, Université Paris Dauphine, France
- **Luciano Serafini**, Fondazione Bruno Kessler, Italy

The overall COVID-19 pandemic situation has so far not allowed to carry on with the Linz Seminars along with keeping its philosophy of providing a friendly and open atmosphere for discussions and mutual exchange of research ideas in person. We hope and stay optimistic that it will be possible again in June 2022. However, we will be bound to follow all the COVID-19 regulations by that time effective by both the Austrian and Upper Austrian federal state as well as Johannes Kepler University Linz and have to request this also of all participants to the seminar. Relevant information will be available on the webpage of the seminar.

The webpage also provides an **update** on the **registration fee** and the **dates**.

Your extended abstracts are welcome until **March 28<sup>th</sup>, 2022, April 4<sup>th</sup>, 2022** following the guidelines outlined at the webpage of the seminar.

Further information available at: <http://www.flll.jku.at/linzseminars>