

# ADT 2021 PhD Day

## 7th International Conference on Algorithmic Decision Theory

3-5 November 2021  
University of Toulouse 1  
Capitole, France



### Wednesday, November 3 Amphithéâtre Hébraud

**8:00 – 8:45** : Registration  
**8:45 – 9:00** : Welcome – Opening

**9:00 – 10:00**  
Invited Talk 1:  
Edith Elkind  
*Mind the Gap : Fair Division with Separation Constraints*

**10:00 – 10:30** : Coffee Break  
**10:30 – 12:30**  
Session 1 (Preference Aggregation and Voting):  
Thekla Hamm, Martin Lackner and Anna Rapberger  
*Computing Kemeny Rankings From  $d$ -Euclidean Preferences*

Nimrod Talmon, Eyal Leizerovich and Gil Ben Zvi  
*Iterative Deliberation via Metric Aggregation*

Ben Abramowitz, Ehud Shapiro and Nimrod Talmon  
*In the Beginning There Were  $n$  Agents : Founding and Amending a Constitution*

Ruben Becker, Gianlorenzo D'Angelo, Esmail Delfaraz and Hugo Gilbert  
*Unveiling the Truth in Liquid Democracy with Misinformed Voters*

**12:30 – 14:00** : Lunch Break

**14:00 – 16:00**  
Session 2 (Fair Division and Resource Allocation):  
Laurent Gourves, Julien Lesca and Anaëlle Wilczynski  
*On Fairness via Picking Sequences in Allocation of Indivisible Goods*

Parham Shams, Aurélie Beynier, Sylvain Bouveret and Nicolas Maudet  
*Minimizing and Balancing Envy among Agents using Ordered Weighted Average*

Luis Müller and Matthias Bentert  
*On Reachable Assignments in Cycles*

Nina Chiarelli, Clément Dallard, Andreas Darmann, Stefan Lendl, Martin Milanič, Peter Muršič, Ulrich Pferschy and Nevena Pivač  
*Allocating Indivisible Items with Minimum Dissatisfaction on Preference Graphs*

**16:00 – 16:30** : Coffee Break

**16:30 – 18:00**  
Session 3 (Preference Elicitation):  
Xudong Liu and Mirek Trzuszczynski  
*Probabilistic Lexicographic Preference Trees*

Loïc Adam and Sébastien Destercke  
*Incremental Elicitation of Preferences: Optimist or Pessimist ?*

Hugo Martin and Patrice Perny  
*Incremental Preference Elicitation with Bipolar Choquet Integrals*

### Thursday, November 4 Amphithéâtre Hébraud

**9:00 – 10:00**  
Invited Talk 2:  
Christophe Labreuche  
*Hierarchical Decision Models with Interacting Criteria : Preference Learning, Identifiability and Explainability*

**10:00 – 10:30** : Coffee Break

**10:30 – 12:30**

Session 4 (Manipulation in Voting) :  
 Haris Aziz and Alexander Lam  
*Obvious Manipulability of Voting Rules*

Yongjie Yang  
*The Nonmanipulative Vote-Deficits of Voting Rules*

Leora Schmerler and Noam Hazon  
*Strategic Voting in Negotiating Teams*

Joanna Kaczmarek and Jörg Rothe  
*Manipulation in Communication Structures of Graph-Restricted Weighted Voting Games*

**12:30-14:00** : Lunch Break**14:00 -16:00**

Session 5 (Computational Social Choice and Preference Modelling) :  
 Bruno Escoffier, Olivier Spanjaard and Magdaléna Tydrichova  
*Measuring Nearly Single-peakedness of an Electorate : Some New Insights*

Arnaud Grivet Sébert, Nicolas Maudet, Patrice Perny and Paolo Viappiani  
*Preference Aggregation in the Generalised Unavailable Candidate Model*

Beatrice Napolitano, Olivier Cailloux and Paolo Viappiani  
*Simultaneous Elicitation of Scoring Rule and Agent Preferences for Robust Winner Determination*

Abu Mohammad Hammad Ali, Howard J. Hamilton, Elizabeth Rayner, Boting Yang and Sandra Zilles  
*Aggregating Preferences Represented by Conditional Preference Networks*

**16:00 – 16:30** : Coffee Break**16:30-18:00**

Session 6 (Stable Matchings - Algorithmic Decision Theory) :  
 Kshitija Taywade, Judy Goldsmith and Brent Harrison  
*Multi-agent Reinforcement Learning for Decentralized Stable Matching*

Taiki Todo, Ryoji Wada, Kentaro Yahiro and Makoto Yokoo  
*Lazy Gale-Shapley for Many-to-One Matching with Partial Information*

Nawal Benabbou, Cassandre Leroy, Thibaut Lust and Patrice Perny  
 Interactive Optimization of Submodular Functions under Matroid Constraints

**18:00 – 18:05** : Short Break**18:05 – 19:00**

Business meeting of EURO Working Group on Preference Handling

**20:00** : Conference Dinner at Les Caves de la Maréchale (3 Rue Jules Chalande, Toulouse)

## Friday, November 5 Amphithéâtre Hébraud

**9:00 – 10:00**

Invited Talk3:  
 Battista Biggio  
*Machine Learning (for) Security : Lessons Learned and Future Challenges*

**10:00 – 10:30** : Coffee Break**10:30 – 12:00**

Session 7 (Coalition Formation - Algorithmic Decision Theory) :  
 Andreas Darmann  
*Hedonic Diversity Games Revisited*

Ben Abramowitz, Edith Elkind, Davide Grossi, Ehud Shapiro and Nimrod Talmon  
*Democratic Forking: Choosing Sides with Social Choice*

Paul Alain Kaldjob Kaldjob, Brice Mayag and Denis Bouyssou  
*Necessary and Possible Interaction in a 2-Maxitive Sugeno Integral Model*

**12:00 – 12:05** : Short Break**12:05 – 13:05**

Session 8 (Participatory Budgeting):  
 Dorothea Baumeister, Linus Boes and Johanna Hillebrand  
*Complexity of Manipulative Interference in Participatory Budgeting*

Haris Aziz and Aditya Ganguly  
*Participatory Funding Coordination: Model, Axioms and Rules*

**13:05 – 13:15** : Concluding Remarks**13:15 – 14:45** : Lunch Break

End of conference

