

I. IDENTIFICATION DATA

Thesis title:	From EigenTrust to SHAPE-Trust
Author's name:	Rutterle Jan
Type of thesis :	Bachelor thesis
Faculty/Institute:	Faculty of Electrical Engineering
Department:	Department of Cybernetics
Thesis reviewer:	Černý Martin
Reviewer's department:	Department of Applied Mathematics, Charles University

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment	B - very good
<i>How demanding was the assigned project?</i>	
The assigned project is within the standards of bachelor theses.	

Fulfilment of assignment	B - very good
<i>How well does the thesis fulfil the assigned task? Have the primary goals been achieved? Which assigned tasks have been incompletely covered, and which parts of the thesis are overextended? Justify your answer.</i>	
All the primary goals have been achieved, although only four experiments on small to middle sized instances of the problem were conducted. The optional goal of investigation of potential applications was not fulfilled.	

Methodology	A - excellent
<i>Comment on the correctness of the approach and/or the solution methods.</i>	
The thesis is well-structured, the topic is well-explained, and a comparison of both methods is provided in four experiments. I think the experiments illustrate well the differences between the methods on specific instances of the problem; however, I would welcome experiments on distributions of instances for a more thorough analysis.	

Technical level	A - excellent
<i>Is the thesis technically sound? How well did the student employ expertise in the field of his/her field of study? Does the student explain clearly what he/she has done?</i>	
The thesis is technically sound	

Formal and language level, scope of thesis	A - excellent
<i>Are formalisms and notations used properly? Is the thesis organized in a logical way? Is the thesis sufficiently extensive? Is the thesis well-presented? Is the language clear and understandable? Is the English satisfactory?</i>	
The thesis is organised in a logical way and well-presented and the language is clear and understandable. The level is above average of what I have encountered at Charles University. The level of English is satisfactory apart from missing articles from time to time.	

Selection of sources, citation correctness

A - excellent

Does the thesis make adequate reference to earlier work on the topic? Was the selection of sources adequate? Is the student's original work clearly distinguished from earlier work in the field? Do the bibliographic citations meet the standards?

This part of the thesis is adequate. Only two minor mistakes. Reference [3] does not have a year. Further, in reference [9], it should be "van der Woude, J." Instead of "Woude, J. van der"

Additional commentary and evaluation (optional)

Comment on the overall quality of the thesis, its novelty and its impact on the field, its strengths and weaknesses, the utility of the solution that is presented, the theoretical/formal level, the student's skillfulness, etc.

Regarding the stylistic and formal formatting of the thesis, I think there are improvements to be made. Firstly, I suggest not representing matrices as figures but rather in the math environment. Furthermore, there are inconsistencies in representing math formulas; preferably, they should be incorporated into the text in sentences.

III. OVERALL EVALUATION, QUESTIONS FOR THE PRESENTATION AND DEFENSE OF THE THESIS, SUGGESTED GRADE

I think the thesis is overall well-written with only minor problems and mistakes. The experimental part is well-conducted; however, in my opinion, it could be extended to better achieve the goals and provide more insights into the comparison of both methods.

The grade that I award for the thesis is **A - excellent**.

I have additional comments and following questions:

Comments

- page 8, last paragraph: "for $i, j \in \{1, 2, 3\}$ " - $\{1, 2, 3\}$ is more preferable
- page 22: I think that one of the properties of coalitional games is mostly referred to as **monotonicity**, not **monotony**
- Figure 3.1: Trust matrix - figure represents a graph, maybe Trust graph as a title?
- page 25: I would not include the last paragraph in the example.
- page 30: "As can be seen in Figure 4.6" - I think it should be either Table 4.3 or Figure 4.7

Questions

- Figure 1.5: Algorithm 2: There is a parameter "a" in the algorithm, which represents the convex combination of two vectors. What value is chosen for "a" in the thesis?
- Do you have any idea about the difference between time complexity of both methods?
- Table 4.2: According to the graph in Figure 4.5, peer-2 and peer-4 are assigned the same value 0.0, although the author presents the ordering as 3. And 4., respectively. Such an ordering supports the claim that "all algorithms rated the peers appropriately". My question is why did the author choose this ordering, despite the values being the same?

Date: **2.6.2024**

Signature: