08. CHAN, Lok Chun. Human Age Ranking Using Hodge Rank.

### Summary of the report.

They employed Hodge Rank method to solve the rank aggregation problem. The predicted global rank was then compared with the ground-truth to access the model accuracy. In addition, they also compared the performance by four most commonly used models, which are Uniform, Bradley-Terry, Thurstone Mosteller and Angular transform model.

Describe the strengths of the report.

Various models are explored.

Describe the weaknesses of the report.

Having a conclusion and summary will be better.

Evaluation on quality of writing (1-5):

4

Evaluation on presentation (1-5):

1

No video.

Evaluation on creativity (1-5):

4

Confidence on your assessment (1-3):

2

# 01. CHAN-LokChun\_report

- 1. Summary
  - The poster applied Hodge Rank method in the age ranking problem.
- 2. Describe the strengths of the report. The three steps applied are quite clear, and I appreciate experiment2 which rules out some unreliable data which makes the analysis more convincing.
- Describe the weaknesses of the report. The conclusions are not given which makes the poster incomplete.
- 4. Evaluation on quality of writing (1-5): 4
- 5. Evaluation on presentation (1-5): 4
- 6. Evaluation on creativity (1-5):4
- 7. Confidence on your assessment: 2

### Group 8

### Summary of the report

Rank human age with Hodge Rank.

### <u>Strength</u>

3 experiments are conducted to test the hypothesis, deeper and deeper understanding when the experiments carried out one by one.

#### Weakness

Only one method is tried.

Evaluation on quality of writing (1-5): 3

Maybe uniform the first person by changing 'we' to 'l', 'our' to 'my', since it's one person's work;

### Evaluation on quality of presentation (1-5): 1

There is no presentation link provided.

Evaluation on quality of creativity (1-5):

The author have some thoughts on the question and conducted some experiment to test his/her idea, it's at least an original idea.

3

<u>Confidence on your assessment (1-3):</u> 2

#### Comment on paper 8

In paper eight, Human Age Ranking Using Hodge Rank, author intended to rank 30 human face images based on their ages. They employed Hodge Rank method to solve the rank aggregation problem due to the incompleteness of the comparison. The predicted global rank was then compared with the ground-truth to access the model accuracy. In addition, they also compared the performance by four most commonly used models, which are Uniform, Bradley-Terry, Thurstone-Mosteller and Angular transform model. Author made three experiments to rank the dataset and compared the methods.

Strength: The strength of this paper is the author compared four methods and used Hodge Rank method to solve the rank aggregation problem.

Weakness: The weakness of this paper is the structure of this paper is not so well. There is no conclusion or analysis to describe the difference between the methods.

Evaluation on quality of writing: 4. The writing is clear and there is no obvious mistake. Pictures and charts are used in this paper.

Evaluation on presentation: 3. Evaluation on creativity: 4. Confidence on your assessment: 3.

# 8. Human Age Ranking Using Hodge Rank

- Summary of this report: In this poster, the Hodge Rank model is used to analyze the human age ranking. Moerover, the performance by four most commonly used models including Uniform, Bradley-Terry, Thurstone-Monsteller and Angular tranform model are compared in this poster.
- **Describe the strengths of the report:** The models are correctly used. The background and the theory of the HodgeRank method are well described.
- **Describe the weaknesses of the report**: Some legends and texts in the figures are too small to be seen clearly. Moreover, a summary is needed in the report to help us understand the main conclusions of this report quickly.
- Evaluation on the presentation : 5
- Evaluation on Clarity and quality of writing (1-5): 5
- Evaluation on Technical Quality (1-5): 3
- Overal ratings: 4
- Confidence on your assessment: 1

# 08. CHAN, Lok Chun. Human Age Ranking Using Hodge Rank

• **Summary:** This report tries to rank human age by pairwise comparison data with four generalized linear models: Uniform model, Bradley-Terry model, Thurstone-Mosteller model and Angualar transform model. Besides performing inconsistency analysis, they also refine the model by removing inconsistent voters, and report a better result.

- **Strength:** The author updates his model according to the inconsistency analysis.
- Weakness: It would be better to add a conclusion.
- Evaluation:

	Writing	Presentation	Creativity	Confidence
Score	4	4	3	2

08. CHAN, Lok Chun. Human Age Ranking Using Hodge Rank.

**Summary:** The author study the human age ranking using Hodge Rank. He evaluates the model by measuring the rank inconsistency and compares the results of different models.

**Strengths:** The author studies several models in the report and makes a comparison of the results of different models.

**Weakness:** Some figures need more explanation. It would be better if the authors can do more analysis on their results and draw some conclusions.

**Evaluation on quality of writing: 4** 

**Evaluation on presentation: 4** 

**Evaluation on creativity: 4** 

**Confidence on your assessment: 2** 

08.CHAN-LokChun\_report

# Summary:

This project employed Hodge Rank method to solve the rank aggregation problem. It then compared the predicted global rank with the ground-truth to access the model accuracy. The author also compared the performance by four most commonly used models, which are Uniform, Bradley-Terry, ThurstoneMosteller and Angular transform model.

Strength and Weakness:

It is a good work and it uses many methods to evaluate the results.

Evaluation on Clarity and quality of writing (1-5):	5
Evaluation on Technical Quality (1-5):	5
Overall rating:	5
Confidence on your assessment:	2

# Human Age Ranking Using Hodge Rank

### 7.1 Summary

For Chan Lok Chun's work, he tries HodgeRank on the human age ranking. He constructs three experiments over the dataset to investigate the inconsistency features and random sampling.

### 7.2 Strength and Weakness

Yu's work is well-organized, and the add-in of the experiments is reasonable. The strength of this report is its structure and the clear analysis process.

7.3 Score

### 7.3.1 Clarity and Quality of Writing

The structure of this poster is good, and the division of character analysis and event analysis really shows some insight for the HodgeRank. I will give him 4/5 on this aspect.

### 7.3.2 Presentation

The presentation is clear and fluent, the slides are fancy. I will give him 5/5 on this aspect.

### 7.3.3 Creativity

New investigation on the random sampling influence and the influence of poor voters. 5/5 on the aspect.

### 7.3.4 Overall

The overall score for this poster is 4.7/5.

08. CHAN, Lok Chun. Human Age Ranking Using Hodge Rank.

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In this work, author evaluated human age ranking via Hodge Rank. Author performed evaluation on four model and proposed two dataset augmentation method to improve the ranking accuracy. As concluded, the uniform model achieved the best performance under his augmented dataset.

Strengths: This work demonstrated a good research clue, which is worth encouraging. Explore the task, raise your own problem and then find a way to solve it. The author first found that the ranking results were not desirable, then he found that many i<sup>o</sup>outlierit voter might contaminate the dataset, so he proposed a method to remove such bad voters. Then the author also discussed his trial on augmenting the dataset by adding more samples.

Weakness: The poster of this work is too simple and may not convey  $author_i$ 's idea clearly, while the presentation complemented this weakness.

Evaluation on quality of writing (3): Author can improve the poster so that the idea can be expressed more clearly on paper.

Evaluation on presentation (5): Very good presentation which clearly described  $author_i$ 's idea and what the author found by raising and solving the problems.

Evaluation on creativity (5): As described in Strengths, the author proposed two dataset augmentation methods based on his observation of bad voter and the sample decreasing after removing such outliers.

Confidence on your assessment(2)