

Submission ID: 997

Paper title: MOGA-CmpCNN: A Multi-Objective Genetic Algorithm Intergrated with CmpCNN Model for CMP-Aware Metal Fill

Clarity / Writing Style (1-5): 5

5 = Very clear.

4 = Understandable.

3 = Mostly understandable.

2 = Important questions are hard to resolve.

1 = Much of the paper is confusing.

Originality / Innovativeness (1-5): 4

Note that a paper could score high for originality even if the results do not show a convincing benefit.

5 = Noteworthy new problem, technique, methodology, or insight.

4 = Creative: Relatively few people in our community would have put these ideas together.

3 = Somewhat conventional.

2 = Obvious, or a minor improvement on familiar techniques.

1 = Significant portions have actually been done before or done better.

Impact of Ideas and/or Results (1-5): 4

5 = Will affect the field.

4 = Some of the ideas/results will substantially help other people's ongoing research.

3 = Interesting but not too influential.

2 = Marginally interesting.

1 = Will have no impact on the field.

OVERALL RECOMMENDATION (1-5): 4

This is the score that will be used for the ranking of the paper.

5 = Top paper (does not need to be award winning though).

4 = Very good paper (only the 25% of the papers should have this ranking or higher).

3 = Borderline: Needs lots of discussion.

2 = Mediocre: Too many weaknesses.

1 = Poor.

Reviewer Confidence (1-3): 3

1 = Low.

2 = Medium.

3 = High.

Summarize shortly the contributions of the paper in your own words.

Summary should explain shortly (**in 1-3 sentences**) the main technical contribution.

Do not discuss strengths and weaknesses here.

Take the advantages of combining the genetic algorithm with CmpCNN, and utilizing the multi-objective fitness score for genetic algorithm, which leading to the better result.

Strengths

What are the strengths of the paper? Itemized list of **max 5 strongest points** (just list shortly).

1. Explore the outcome of the various methods, including fill patterns, objective functions, and algorithms, to determine the optimal combination for optimization.
2. Drastically optimize the outcome for the metal fill during the CMP process.
3. The explanation in the paper is clear.

Weaknesses

What are the weaknesses of the paper? Itemized list of **max 5 weakest points** (just list shortly).

1. We have no idea of the runtime of this method.
2. The CmpCNN network structure is as same as the referenced paper. Can this structure lead to the best result?
3. Lack of the explanation about the evaluation step (e.g. density calculation, is it as same as OD?)
4. How empirical height at a specified density threshold obtained?