

Project Update

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Static Images

Previous result



Bug fixed



Original



Previous result



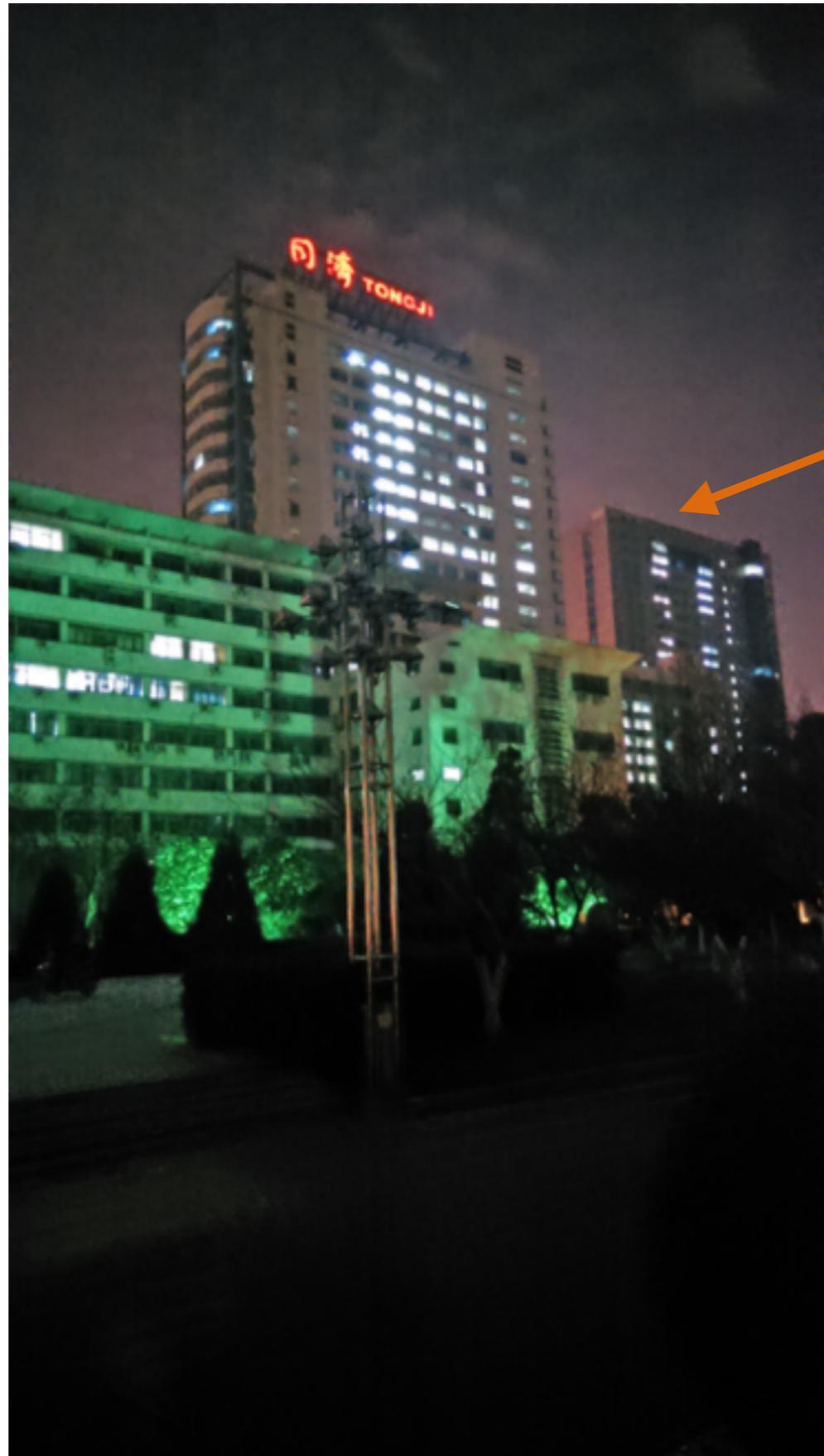
Bug fixed



Original



Previous result



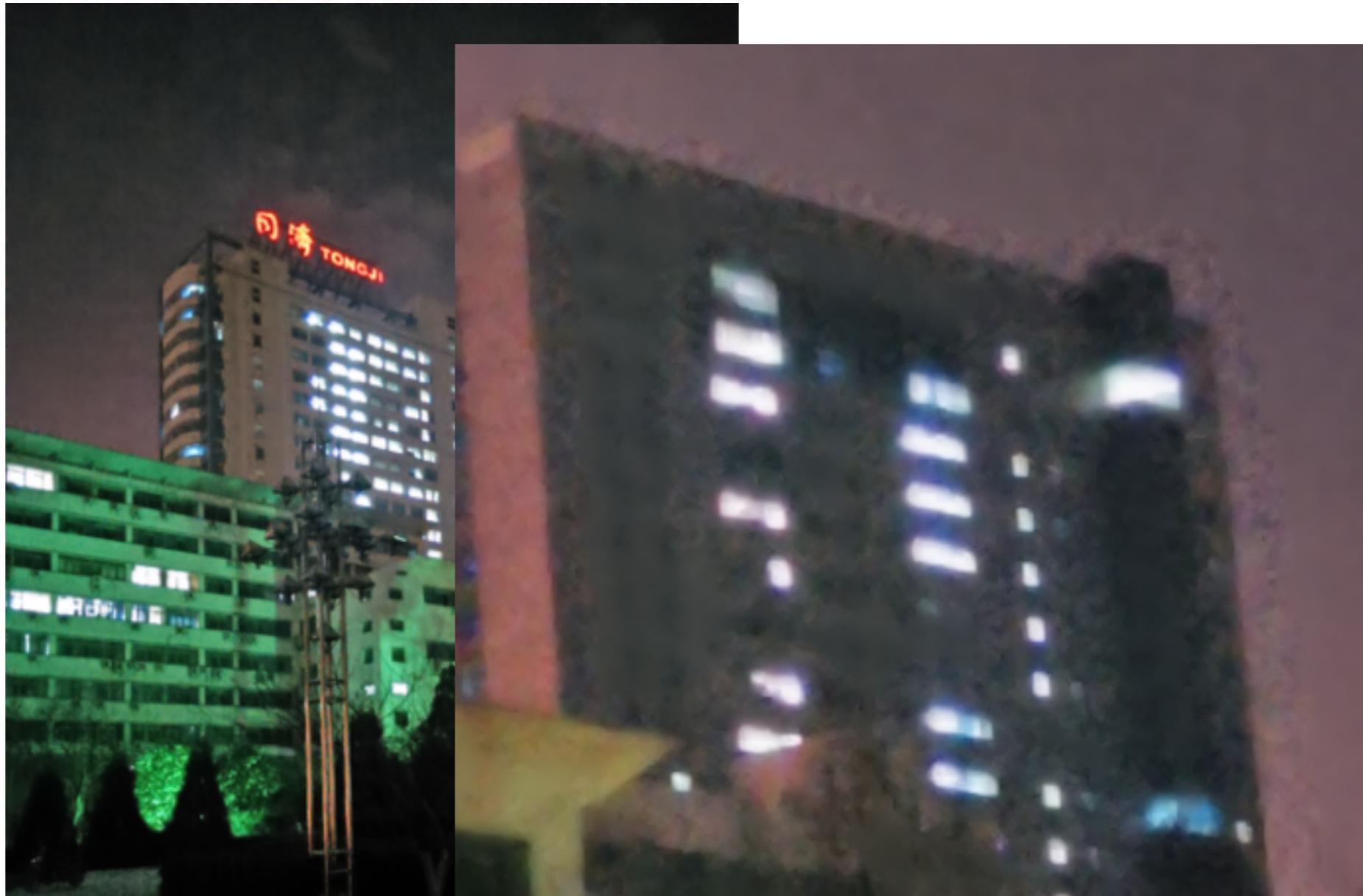
Bug fixed



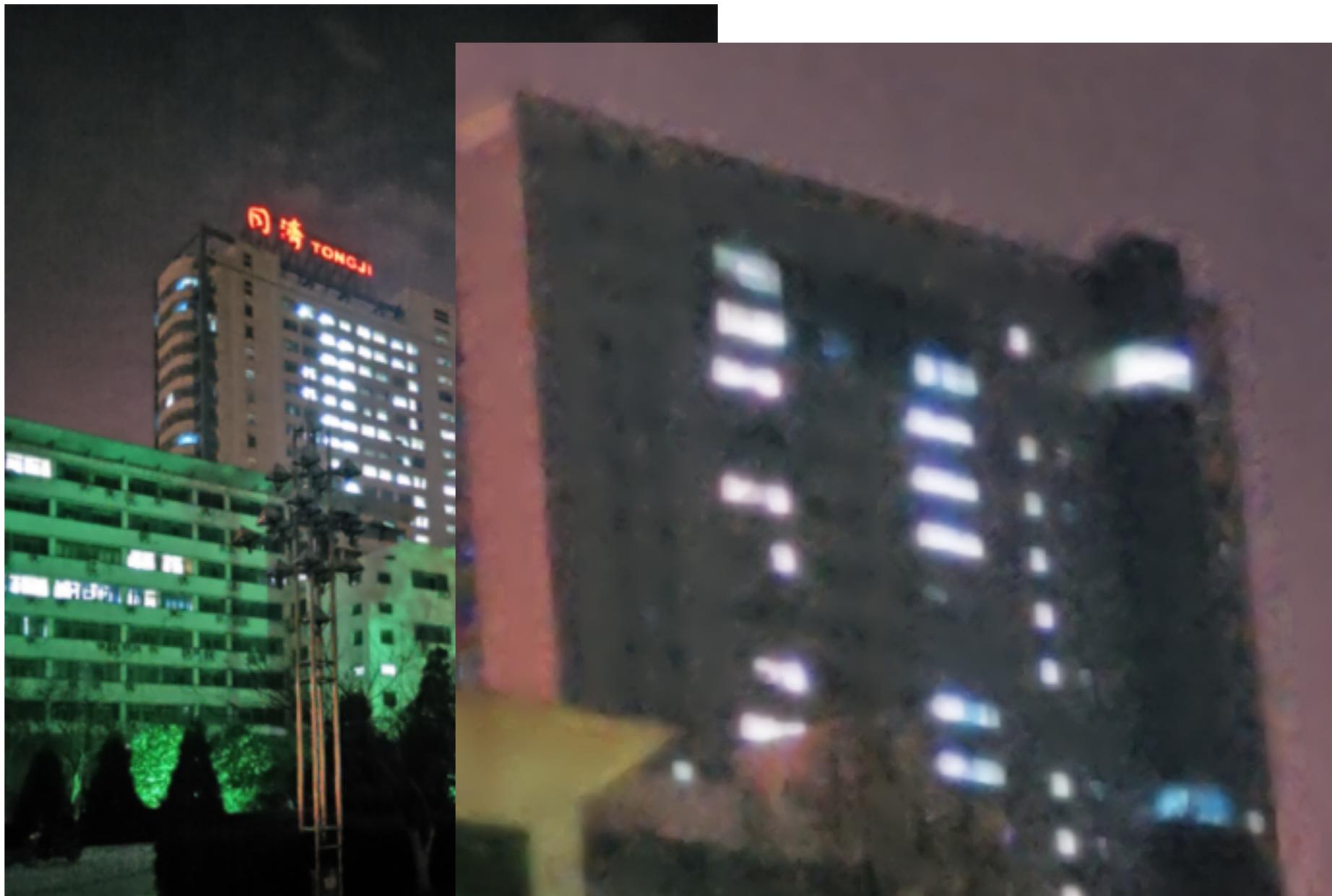
Original



Previous result



Bug fixed



Paper's



Previous result



Bug fixed



Original



Previous result



Bug fixed



Original



Previous result



Bug fixed



Paper's



Previous result



Bug fixed



Original



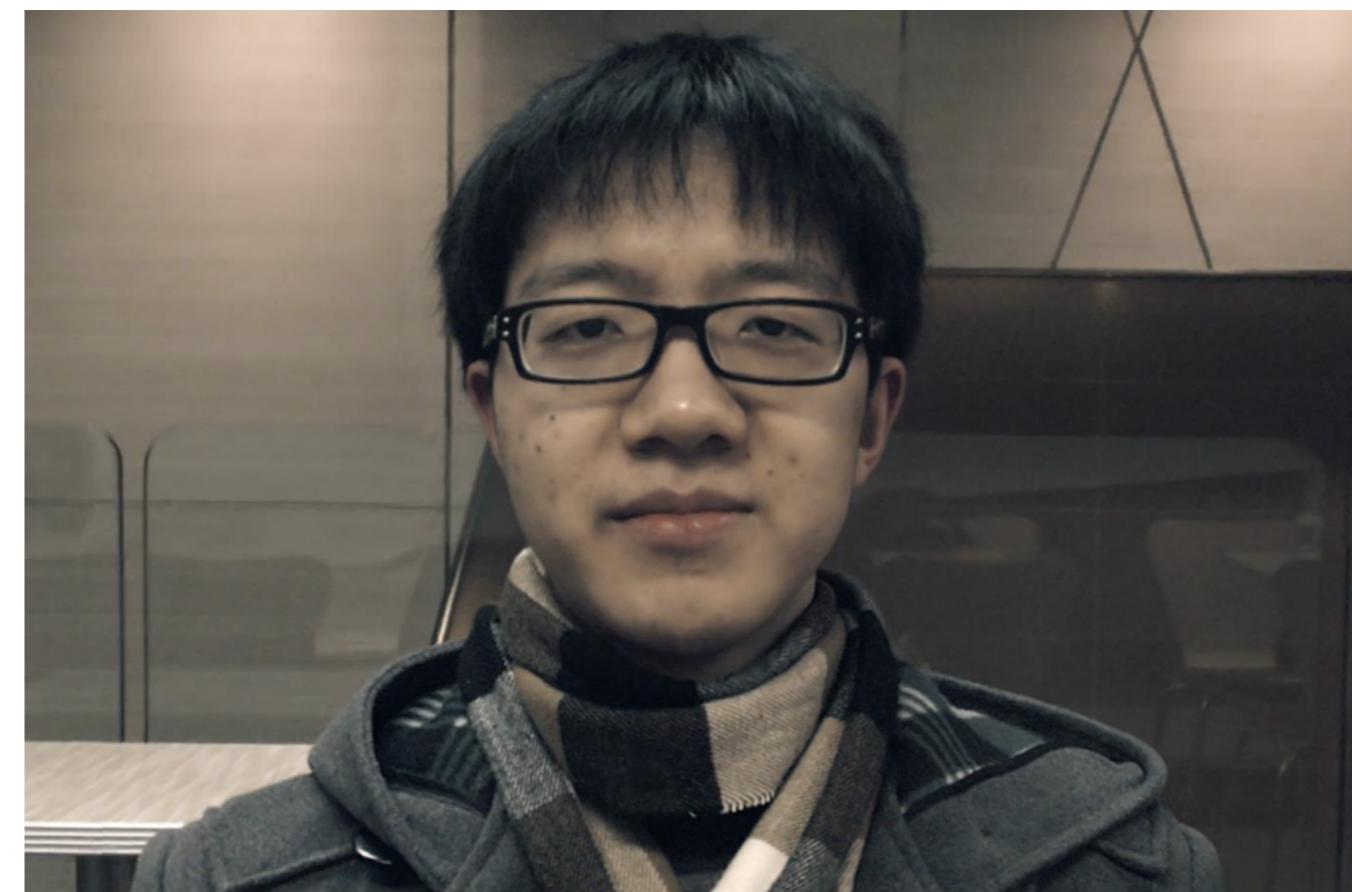
Conclusion

- Get consistently better result after bug fixing
- Still not as good as the paper's
- Some common problems want to be discussed
 - rigidity
 - noise points
 - texture detail

Rigidness

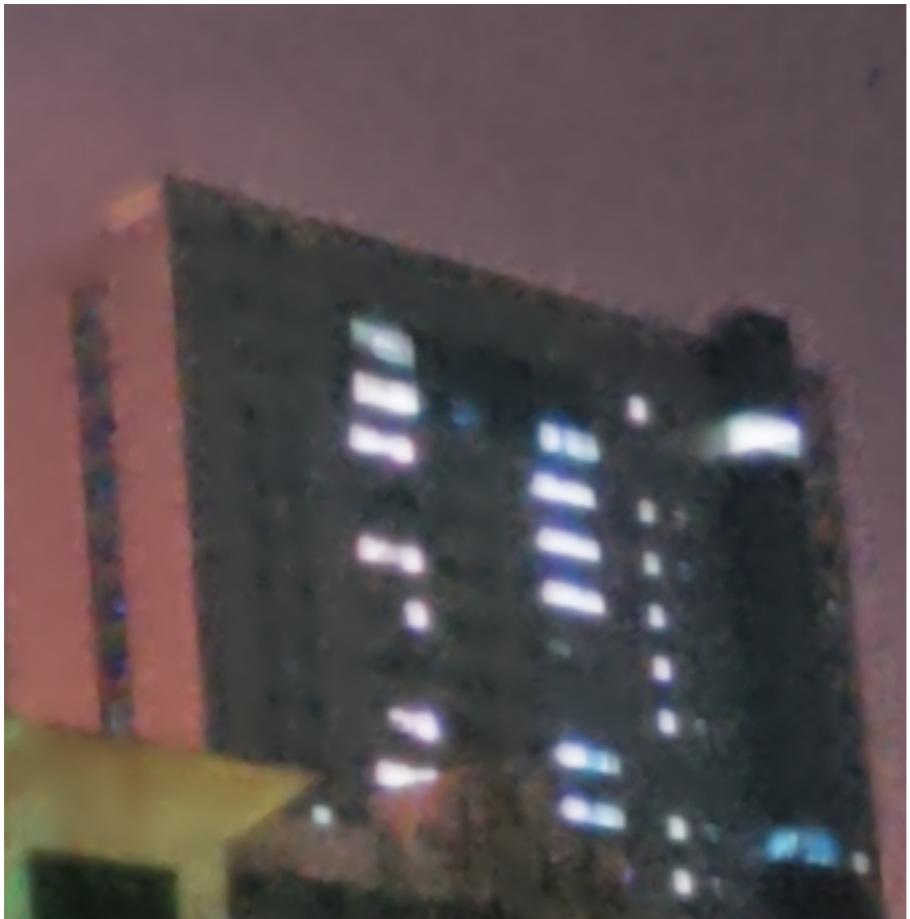


Our result



Paper's

Noise points



Our result

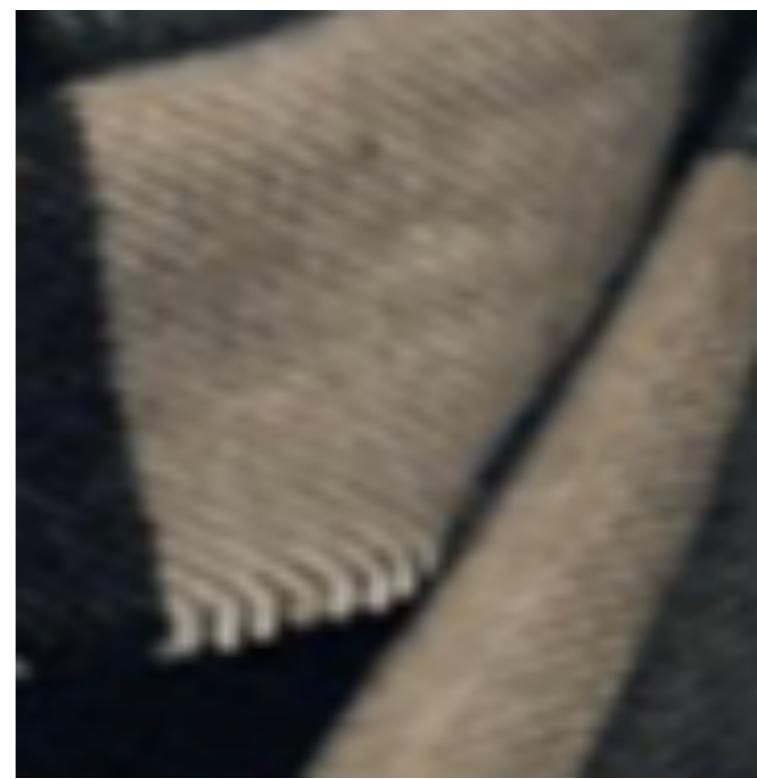


Paper's

Texture detail



Our result



Paper's

Technical Problem

- Increase pyramid level (as described in paper) makes tomography estimation worse
 - fewer matched feature points in coarsest level
 - cannot capture local motion
 - can we calculate the feature matching at second level? (but still view it as 4 nodes)

Result / e+04 (# of level)	○ Bookshelf_1	○ Bookshelf_2	○ Building_1	○ Building_2	○ Restaurant_2	○ Portrait_1
Origin	○ 7.6914 (4)	○ 0.87486 (2)	○ 3.7828 (3)	○ 3.9307 (3)	○ 3.7164 (3)	○ 2.745 (3)
Increase # of level (fix bug 1)	○ 7.6914 (4)	○ 1.6679 (3)	○ 5.777 (4)	○ 5.3588 (4)	○ 3.7164 (3)	○ 2.6046 (3)

Technical Problem

- Increase pyramid level (as described in paper)
make tomography estimation worse
 - fewer matched feature points in coarsest level
 - cannot capture local motion
 - can we calculate the feature matching at second level? (but still view it as 4 nodes)
- Homography estimation is a non-deterministic algorithm, may get different result each time
- In fusion step, Jiong's code uses grayscale images to calculate variance
- Something can be added
 - check the rigidness of homography for optimization

Motion Scenes

Our result



Original



Our result



Original



Paper's



Our result

