# Tips for Writing a Research Paper using LaTeX

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## Contents



## 1. Introduction

LaTeX is a very powerful tool for documentation preparation, and is often used by researchers to prepare a manuscript for reviewing and publication. However, some new graduate students might not have experience in using LaTeXand thus have a difficult time in prepare their first paper.

In this article, we will first provide some tips for paper writing. using LaTeX. Then, we will showcase several working examples for the table and figure, which have been used in my previous publications. The readers are encouraged to adapt those tables and figures to their purposes to save time.

## 2. Tips for the Writing

In this section, we provide some tips for paper writing.

- There should be a space before the open parentheses:
  Convolutional neural network(CNN) has been successfully applied on various vision problems. ×
  Convolutional neural network (CNN) has been successfully applied on various vision problems. ✓

- There should be no space before the period and comma punctuation marks:
  Convolutional neural network (CNN) has been successfully applied on various vision problems . ×
  Convolutional neural network (CNN) has been successfully applied on various vision problems. ✓

- There should be a punctuation at the end of the equation:

$$E = mc^2 \quad \times \tag{1}$$

$$E = mc^2. \quad \checkmark \tag{2}$$

- All equations should be numbered:

$$E = mc^2. \quad \times$$

$$E = mc^2. \quad \checkmark \tag{3}$$

- The first character in a sentence should be capitalized:
  how are you? ×
  How are you? ✓

- Double quotation marks should be correctly typed:
  Are you ”okay”? ×
  Are you “okay”? ✓

- There should be a space before the citation:
  A proposes a method B for this problem[1]. ×
  A proposes a method B for this problem [1]. ✓

- Do not include citations in the abstract.

- Use \ie command for *i.e.* and use \eg for *e.g.*

- Define a macro for a word or phrase if it appears frequently (*e.g.*, the method name and the dataset name). The command can be “\newcommand{\NetName}{A Great Deep Net}”.

- When referring to a table, also use “Table 1” in a sentence.

- The table caption should be at the top of the table.

- When referring to a figure, use “Figure 1” at the beginning, and “Fig. 1” at the middle or the end of a sentence.

- The figure caption should be at the bottom of the table.

- It is better to put the tables and figures at the top of a page.

## 3. Examples for the Tables

Table 1. A simple table with a header row.

| Data | Size | 2-Exp | 3-Exp | 4-Exp | 5-Exp | 6-Exp | 7-Exp |
|---|---|---|---|---|---|---|---|
| A | $1280 \times 720$ | 1 | 2 | 3 | 4 | 5 | 4 |
| B | $1280 \times 720$ | 1 | 2 | 3 | 4 | 5 | 4 |
| Ours | $4096 \times 2168$ | 2 | 3 | 4 | 6 | 5 | 4 |

Table 2. A table with multi-column headers.

| | | $6-9$ frames | | $5-7$ frames | | $50-200$ frames | |
|---|---|---|---|---|---|---|---|
| Data | Size | 2-Exp | 3-Exp | 2-Exp | 3-Exp | 2-Exp | 3-Exp |
| A | $1280 \times 720$ | 1 | 2 | 3 | 4 | 5 | 4 |
| B | $1280 \times 720$ | 1 | 2 | 3 | 4 | 5 | 4 |
| Ours | $4096 \times 2168$ | 2 | 3 | 4 | 6 | 5 | 4 |

Table 3. A table with line break in the header. Line break is useful if the item name is too long.

| | | $6-9$ frames | | | $5-7$ frames | | |
|---|---|---|---|---|---|---|---|
| Data | Size | 2-Exp Scenes | 2-Exp Scenes | 2-Exp Scenes | 2-Exp Scenes | 2-Exp Scenes | 2-Exp Scenes |
| A | $1280 \times 720$ | 1 | 2 | 3 | 4 | 5 | 4 |
| B | $1280 \times 720$ | 1 | 2 | 3 | 4 | 5 | 4 |
| Ours | $4096 \times 2168$ | 2 | 3 | 4 | 6 | 5 | 4 |

Table 4. A table with multi-column headers and vertical lines for grouping.

| | | $6-9$ frames | | | $5-7$ frames | | |
|---|---|---|---|---|---|---|---|
| Data | Size | 2-Exp Scenes | 2-Exp Scenes | 2-Exp Scenes | 2-Exp Scenes | 2-Exp Scenes | 2-Exp Scenes |
| A | $1280 \times 720$ | 1 | 2 | 3 | 4 | 5 | 4 |
| B | $1280 \times 720$ | 1 | 2 | 3 | 4 | 5 | 4 |
| Ours | $4096 \times 2168$ | 2 | 3 | 4 | 6 | 5 | 4 |

Table 5. A table with multi-column headers and bold font highlights.

| | | $6-9$ frames | | | $5-7$ frames | | |
|---|---|---|---|---|---|---|---|
| Data | Size | 2-Exp Break | 2-Exp Break | 2-Exp Break | 2-Exp Break | 2-Exp Break | 2-Exp Break |
| A | $1280 \times 720$ | 1 | 2 | 3 | 4 | **5** | **7** |
| B | $1280 \times 720$ | 1 | 2 | 3 | 4 | **5** | **7** |
| Ours | $4096 \times 2168$ | **2** | **3** | **4** | **6** | **5** | 4 |

Table 6. A table with parallel lines for grouping and color highlight.

| | | Synthetic Dataset | | Static Data | | Dynamicgt Data | |
|---|---|---|---|---|---|---|---|
| ID | Method | PSNRT | VDP | PSNRT | VDP | PSNRT | VDP |
| 0 | ANet | 39.25 | 70.81 | 40.62 | 74.51 | 44.43 | 77.74 |
| 1 | BNet | 39.69 | 70.95 | 37.61 | 75.30 | 43.70 | 78.97 |
| 2 | ANet + BNet | **40.34** | **71.79** | **41.18** | **76.15** | **45.46** | **79.09** |
| 3 | ANet + BNet w/o C | 39.72 | 71.38 | 40.52 | 74.79 | 45.09 | 78.24 |
| 4 | ANet + BNet w/o D | 40.03 | 71.66 | 40.80 | 76.12 | 45.17 | 78.99 |

Table 7. A table for illustrating the network architecture.

| **RefineNet** | | | | | |
|---|---|---|---|---|---|
| **layer** | **k** | **s** | **chns** | **d-f** | **input** |
| conv1 | 9 | 1 | 8/64 | 1 | Image+m_1+a_1+f_1 |
| conv2 | 4 | 2 | 64/64 | 2 | conv1 |
| conv3 | 4 | 2 | 64/64 | 4 | conv2 |
| conv4 | 4 | 2 | 64/64 | 8 | conv3 |
| ResBlock1 | 3 | 1 | 64/64 | 8 | conv4 |
| ResBlock2 | 3 | 1 | 64/64 | 8 | ResBlock1 |
| ResBlock3 | 3 | 1 | 64/64 | 8 | ResBlock2 |
| ResBlock4 | 3 | 1 | 64/64 | 8 | ResBlock3 |
| ResBlock5 | 3 | 1 | 64/64 | 8 | ResBlock4 |
| deconv1_a | 4 | 2 | 64/64 | 4 | ResBlock5 |
| deconv2_a | 4 | 2 | 64/64 | 2 | deconv1_a |
| deconv3_a | 4 | 2 | 64/64 | 1 | deconv2_a |
| a_refined | 3 | 1 | 65/1 | 1 | deconv3_a+a_1 |
| deconv1_f | 4 | 2 | 64/64 | 4 | ResBlock5 |
| deconv2_f | 4 | 2 | 64/64 | 2 | deconv1_f |
| deconv3_f | 4 | 2 | 64/64 | 1 | deconv2_f |
| f_refined | 3 | 1 | 66/2 | 1 | deconv3_f+f_1 |

Table 8. An example for table with images.


(a) (b) (c)

| Type | Range | MAE |
|---|---|---|
| (a) | $144 \times 144$ | 4.21 |
| (b) | $37 \times 37$ | 10.90 |
| (c) | $22 \times 22$ | 18.72 |

(d) Normal estimation

Table 9. A two-column table.

| | Glass | | | | Object A | | | | Object B | | | | Object C | | | | Average | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | F-EPE | A-MSE | I-MSE | M-IoU | F-EPE | A-MSE | I-MSE | M-IoU | F-EPE | A-MSE | I-MSE | M-IoU | F-EPE | A-MSE | I-MSE | M-IoU | F-EPE | A-MSE | I-MSE | M-IoU |
| Method A | 3.6 / 30.3 | 1.33 | 0.48 | 0.12 | 6.4 / 53.2 | 1.54 | 0.68 | 0.12 | 10.3 / 39.2 | 1.94 | 1.57 | 0.24 | 6.8 / 56.8 | 2.50 | 0.85 | 0.11 | 6.8 / 44.9 | 1.83 | 0.90 | 0.15 |
| Method B | 2.1 / 15.8 | 0.22 | 0.14 | 0.97 | 3.1 / 23.5 | 0.31 | 0.23 | 0.97 | 2.0 / 6.7 | 0.17 | 0.28 | 0.99 | 4.5 / 34.4 | 0.38 | 0.33 | 0.92 | 2.9 / 20.1 | 0.27 | 0.24 | 0.96 |
| Method C | 1.9 / 14.7 | 0.21 | 0.14 | 0.97 | 2.9 / 21.8 | 0.30 | 0.22 | 0.97 | 1.9 / 6.6 | 0.15 | 0.29 | 0.99 | 4.1 / 31.5 | 0.37 | 0.32 | 0.92 | 2.7 / 18.6 | 0.26 | 0.24 | 0.96 |

Table 10. A two-column table with remark.

| | Glass | | | | Object A | | | | Object B | | | | Object C | | | | Average | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | F-EPE | A-MSE | I-MSE | M-IoU | F-EPE | A-MSE | I-MSE | M-IoU | F-EPE | A-MSE | I-MSE | M-IoU | F-EPE | A-MSE | I-MSE | M-IoU | F-EPE | A-MSE | I-MSE | M-IoU |
| Method A | 3.6 / 30.3 | 1.33 | 0.48 | 0.12 | 6.4 / 53.2 | 1.54 | 0.68 | 0.12 | 10.3 / 39.2 | 1.94 | 1.57 | 0.24 | 6.8 / 56.8 | 2.50 | 0.85 | 0.11 | 6.8 / 44.9 | 1.83 | 0.90 | 0.15 |
| Method B* | 2.1 / 15.8 | 0.22 | 0.14 | 0.97 | 3.1 / 23.5 | 0.31 | 0.23 | 0.97 | 2.0 / 6.7 | 0.17 | 0.28 | 0.99 | 4.5 / 34.4 | 0.38 | 0.33 | 0.92 | 2.9 / 20.1 | 0.27 | 0.24 | 0.96 |
| Method C | 1.9 / 14.7 | 0.21 | 0.14 | 0.97 | 2.9 / 21.8 | 0.30 | 0.22 | 0.97 | 1.9 / 6.6 | 0.15 | 0.29 | 0.99 | 4.1 / 31.5 | 0.37 | 0.32 | 0.92 | 2.7 / 18.6 | 0.26 | 0.24 | 0.96 |

* indicates that method B is trained from scratch.

Table 11. A two-column table with color header.

| | Glass | | | | Glass with Water | | | | Lens | | | | Complex Shape | | | | Average | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | F-EPE | A-MSE | I-MSE | M-IoU | F-EPE | A-MSE | I-MSE | M-IoU | F-EPE | A-MSE | I-MSE | M-IoU | F-EPE | A-MSE | I-MSE | M-IoU | F-EPE | A-MSE | I-MSE | M-IoU | MSE ($\cdot 10^{-2}$) |
| Method A | 3.6 / 30.3 | 1.33 | 0.48 | 0.12 | 6.4 / 53.2 | 1.54 | 0.68 | 0.12 | 10.3 / 39.2 | 1.94 | 1.57 | 0.24 | 6.8 / 56.8 | 2.50 | 0.85 | 0.11 | 6.8 / 44.9 | 1.83 | 0.90 | 0.15 | ↓ better |
| Method B | 2.1 / 15.8 | 0.22 | 0.14 | 0.97 | 3.1 / 23.5 | 0.31 | 0.23 | 0.97 | 2.0 / 6.7 | 0.17 | 0.28 | 0.99 | 4.5 / 34.4 | 0.38 | 0.33 | 0.92 | 2.9 / 20.1 | 0.27 | 0.24 | 0.96 | ↑ better |
| Method C | 1.9 / 14.7 | 0.21 | 0.14 | 0.97 | 2.9 / 21.8 | 0.30 | 0.22 | 0.97 | 1.9 / 6.6 | 0.15 | 0.29 | 0.99 | 4.1 / 31.5 | 0.37 | 0.32 | 0.92 | 2.7 / 18.6 | 0.26 | 0.24 | 0.96 | |

Table 12. A two-column table with two sub-tables. **Red** text indicates the best and **blue** text indicates the second best result, respectively.

(a) Results on dataset A.

| | 2-Exposure | | | | | | | 3-Exposure | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Low-Exposure | | High-Exposure | | All-Exposure | | | Low-Exposure | | Middle-Exposure | | High-Exposure | | All-Exposure | |
| Method | PSNR | HDR-VDP2 | PSNR | HDR-VDP2 | PSNR | HDR-VDP2 | HDR-VQM | PSNR | HDR-VDP2 | PSNR | HDR-VDP2 | PSNR | HDR-VDP2 | PSNR | HDR-VDP2 | HDR-VQM |
| Method A | **40.00** | 73.70 | **40.04** | **70.08** | **40.02** | 71.89 | **76.22** | **39.61** | 73.24 | **39.67** | **73.24** | **40.01** | 67.90 | **39.77** | 70.37 | 79.55 |
| Method B | 34.54 | 80.22 | 39.25 | 65.96 | 36.90 | 73.09 | 65.33 | 36.51 | 77.78 | 37.45 | 69.79 | 39.02 | 64.57 | 37.66 | 70.71 | 70.13 |
| Method C | 39.79 | **81.02** | 39.96 | 67.25 | 39.88 | **74.13** | 73.84 | 39.48 | **78.13** | 38.43 | 70.08 | 39.60 | **67.94** | 39.17 | **72.05** | **80.70** |
| Ours | **41.95** | **81.03** | **40.41** | **71.27** | **41.18** | **76.15** | **78.84** | **40.00** | **78.66** | **39.27** | **73.10** | **39.99** | **69.99** | **39.75** | **73.92** | **82.87** |

(b) Results on dataset B.

| | 2-Exposure | | | | | | | 3-Exposure | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Low-Exposure | | High-Exposure | | All-Exposure | | | Low-Exposure | | Middle-Exposure | | High-Exposure | | All-Exposure | |
| Method | PSNR | HDR-VDP2 | PSNR | HDR-VDP2 | PSNR | HDR-VDP2 | HDR-VQM | PSNR | HDR-VDP2 | PSNR | HDR-VDP2 | PSNR | HDR-VDP2 | PSNR | HDR-VDP2 | HDR-VQM |
| Method A | 37.73 | 74.05 | 45.71 | 66.67 | 41.72 | 70.36 | 85.33 | 37.53 | 72.03 | 36.38 | 65.37 | 34.73 | 62.24 | 36.21 | 66.55 | 84.43 |
| Method B | 36.41 | 85.68 | **49.89** | **69.90** | 43.15 | 77.79 | 78.92 | 36.43 | 77.74 | 39.80 | **67.88** | **43.03** | **64.74** | 39.75 | **70.12** | 87.93 |
| Method C | **39.94** | **86.77** | 49.49 | 69.04 | **44.72** | **77.91** | **87.16** | **38.34** | **78.04** | **41.21** | 66.07 | 42.66 | 64.01 | **40.74** | 69.37 | **89.36** |
| Ours | **40.83** | **86.84** | **50.10** | **71.33** | **45.46** | **79.09** | **87.40** | **38.77** | **78.11** | **41.47** | **68.49** | **43.24** | **65.08** | **41.16** | **70.56** | **89.56** |

Table 13. A two-column table with images in the header. Images are useful to visualize each item in the header.

| | Image | | Image | | Image | | Image | | Image | | Image | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | *Helmet Side* | | *Plant* | | *Fighting Knight* | | *Kneeling Knight* | | *Standing Knight* | | *Helmet Front* | | average | |
| model | dir. | int. | dir. | int. | dir. | int. | dir. | int. | dir. | int. | dir. | int. | dir. | int. |
| Method A | 25.40 | 0.576 | 20.56 | 0.227 | 69.50 | 1.137 | 46.69 | 9.805 | 33.81 | 1.311 | 81.60 | **0.133** | 46.26 | 2.198 |
| Method B | 6.57 | 0.212 | 16.06 | 0.170 | 15.95 | 0.214 | 19.84 | 0.199 | 11.60 | 0.286 | 11.62 | 0.248 | 13.61 | 0.221 |
| Method C | **5.33** | **0.096** | **10.49** | **0.154** | **13.42** | **0.168** | **14.41** | **0.181** | **5.31** | **0.198** | **6.22** | 0.183 | **9.20** | **0.163** |

Table 14. Two tables placed side by side. Table A (left).

| | | $6-9$ frames | | $5-7$ frames | | $50-200$ frames | |
|---|---|---|---|---|---|---|---|
| Data | Size | 2-Exp | 3-Exp | 2-Exp | 3-Exp | 2-Exp | 3-Exp |
| A | $1280 \times 720$ | 1 | 2 | 3 | 4 | 5 | 4 |
| Ours | $4096 \times 2168$ | 2 | 3 | 4 | 6 | 5 | 4 |

Table 15. Two tables placed side by side. Table B (right).

| | | $6-9$ frames | | $5-7$ frames | | | |
|---|---|---|---|---|---|---|---|
| Data | Size | 2-Exp Scenes | 2-Exp Scenes | 2-Exp Scenes | 2-Exp Scenes | 2-Exp Scenes | 2-Exp Scenes |
| A | $1280 \times 720$ | 1 | 2 | 3 | 4 | 5 | 4 |
| Ours | $4096 \times 2168$ | 2 | 3 | 4 | 6 | 5 | 4 |

Table 16. A table with caption at the right. This is useful for single-column paper (*e.g.*, ECCV), where space are limited.

| | | $6-9$ frames | | $5-7$ frames | | $50-200$ frames | |
|---|---|---|---|---|---|---|---|
| Data | Size | 2-Exp | 3-Exp | 2-Exp | 3-Exp | 2-Exp | 3-Exp |
| A | $1280 \times 720$ | 1 | 2 | 3 | 4 | 5 | 4 |
| Ours | $4096 \times 2168$ | 2 | 3 | 4 | 6 | 5 | 4 |

Table 17. A two-column table for illustrating the network architecture.

| Encoder | | | | | |
|---|---|---|---|---|---|
| **layer** | **k** | **s** | **chns** | **d-f** | **input** |
| conv1 | 3 | 1 | 3/16 | 1 | Image |
| conv1b | 3 | 1 | 16/16 | 1 | conv1 |
| conv2 | 3 | 2 | 16/16 | 2 | conv1b |
| conv2b | 3 | 1 | 16/16 | 2 | conv2 |
| conv3 | 3 | 2 | 16/32 | 4 | conv2b |
| conv3b | 3 | 1 | 32/32 | 4 | conv3 |
| conv4 | 3 | 2 | 32/64 | 8 | conv3b |
| conv4b | 3 | 1 | 64/64 | 8 | conv4 |
| conv5 | 3 | 2 | 64/128 | 16 | conv4b |
| conv5b | 3 | 1 | 128/128 | 16 | conv5 |
| conv6 | 3 | 2 | 128/256 | 32 | conv5b |
| conv6b | 3 | 1 | 256/256 | 32 | conv6 |
| conv7 | 3 | 2 | 256/256 | 64 | conv6b |
| conv7b | 3 | 1 | 256/256 | 64 | conv7 |

| Decoder | | | | | |
|---|---|---|---|---|---|
| **layer** | **k** | **s** | **chns** | **d-f** | **input** |
| conv_up7_m | 3 | 1 | 256/256 | 32 | conv7b |
| conv_up7_a | 3 | 1 | 256/256 | 32 | conv7b |
| conv_up7_f | 3 | 1 | 256/256 | 32 | conv7b |
| conv_up7=conv_up7_m+conv_up7_a+conv_up7_f | | | | | |
| conv_up6_m | 3 | 1 | 256/128 | 16 | conv_up7+conv6b |
| conv_up6_a | 3 | 1 | 256/128 | 16 | conv_up7+conv6b |
| conv_up6_f | 3 | 1 | 256/128 | 16 | conv_up7+conv6b |
| conv_up6=conv_up6_m+conv_up6_a+conv_up6_f | | | | | |
| conv_up5_m | 3 | 1 | 128/64 | 8 | conv_up6+conv5b |
| conv_up5_a | 3 | 1 | 128/64 | 8 | conv_up6+conv5b |
| conv_up5_f | 3 | 1 | 128/64 | 8 | conv_up6+conv5b |
| conv_up5=conv_up5_m+conv_up5_a+conv_up5_f | | | | | |
| m_4 | 3 | 1 | 128/2 | 8 | conv_up5+conv4b |
| a_4 | 3 | 1 | 128/1 | 8 | conv_up5+conv4b |
| f_4 | 3 | 1 | 128/2 | 8 | conv_up5+conv4b |
| conv_up4_m | 3 | 1 | 128/32 | 4 | conv_up5+conv4b |
| conv_up4_a | 3 | 1 | 128/32 | 4 | conv_up5+conv4b |
| conv_up4_f | 3 | 1 | 128/32 | 4 | conv_up5+conv4b |
| conv_up4=conv_up4_m+conv_up4_a+conv_up4_f | | | | | |
| m_3 | 3 | 1 | 69/2 | 4 | conv_up4+conv3b+(m_4$^{\times 2}$+a_4$^{\times 2}$+a_4$^{\times 2}$) |
| a_3 | 3 | 1 | 69/1 | 4 | conv_up4+conv3b+(m_4$^{\times 2}$+a_4$^{\times 2}$+a_4$^{\times 2}$) |
| f_3 | 3 | 1 | 69/2 | 4 | conv_up4+conv3b+(m_4$^{\times 2}$+a_4$^{\times 2}$+a_4$^{\times 2}$) |
| conv_up3_m | 3 | 1 | 69/16 | 2 | conv_up4+conv3b+(m_4$^{\times 2}$+a_4$^{\times 2}$+a_4$^{\times 2}$) |
| conv_up3_a | 3 | 1 | 69/16 | 2 | conv_up4+conv3b+(m_4$^{\times 2}$+a_4$^{\times 2}$+a_4$^{\times 2}$) |
| conv_up3_f | 3 | 1 | 69/16 | 2 | conv_up4+conv3b+(m_4$^{\times 2}$+a_4$^{\times 2}$+a_4$^{\times 2}$) |
| conv_up3=conv_up3_m+conv_up3_a+conv_up3_f | | | | | |
| m_2 | 3 | 1 | 37/2 | 2 | conv_up3+conv2b+(m_3$^{\times 2}$+a_3$^{\times 2}$+a_3$^{\times 2}$) |
| a_2 | 3 | 1 | 37/1 | 2 | conv_up3+conv2b+(m_3$^{\times 2}$+a_3$^{\times 2}$+a_3$^{\times 2}$) |
| f_2 | 3 | 1 | 37/2 | 2 | conv_up3+conv2b+(m_3$^{\times 2}$+a_3$^{\times 2}$+a_3$^{\times 2}$) |
| conv_up2_m | 3 | 1 | 37/16 | 1 | conv_up3+conv2b+(m_3$^{\times 2}$+a_3$^{\times 2}$+a_3$^{\times 2}$) |
| conv_up2_a | 3 | 1 | 37/16 | 1 | conv_up3+conv2b+(m_3$^{\times 2}$+a_3$^{\times 2}$+a_3$^{\times 2}$) |
| conv_up2_f | 3 | 1 | 37/16 | 1 | conv_up3+conv2b+(m_3$^{\times 2}$+a_3$^{\times 2}$+a_3$^{\times 2}$) |
| conv_up2=conv_up2_m+conv_up2_a+conv_up2_f | | | | | |
| m_1 | 3 | 1 | 37/2 | 1 | conv_up2+conv1b+(m_2$^{\times 2}$+a_2$^{\times 2}$+a_2$^{\times 2}$) |
| a_1 | 3 | 1 | 37/1 | 1 | conv_up2+conv1b+(m_2$^{\times 2}$+a_2$^{\times 2}$+a_2$^{\times 2}$) |
| f_1 | 3 | 1 | 37/2 | 1 | conv_up2+conv1b+(m_2$^{\times 2}$+a_2$^{\times 2}$+a_2$^{\times 2}$) |

## 4. Examples for Figures

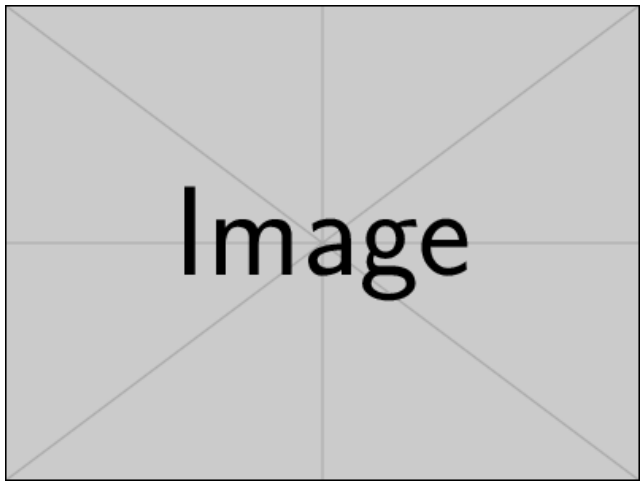



Figure 1. A simple figure.

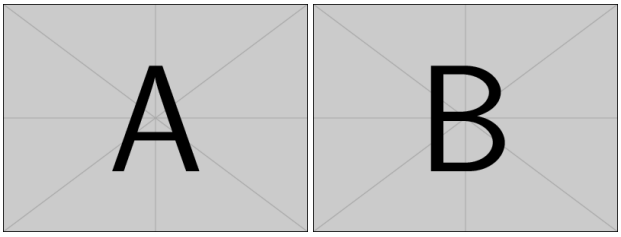



Figure 2. A figure with two images placed side-by-side.

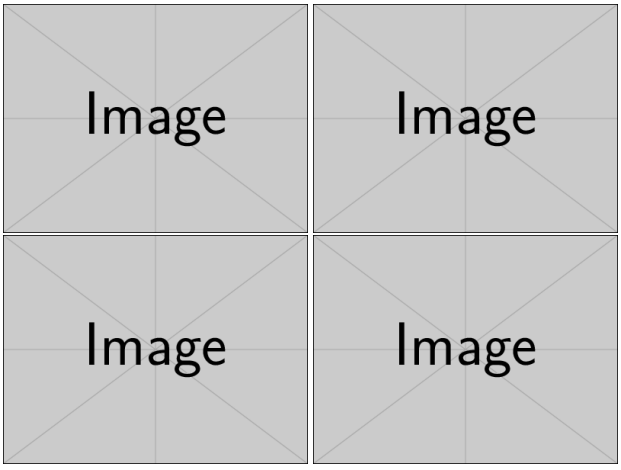



Figure 3. A figure with four images.


Figure 4. A figure with text header.

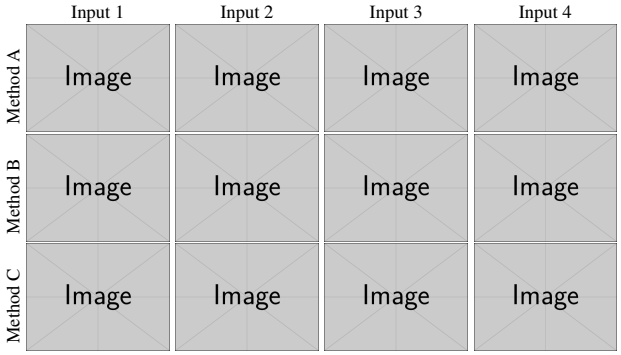



Figure 5. A figure with vertical text illustration.

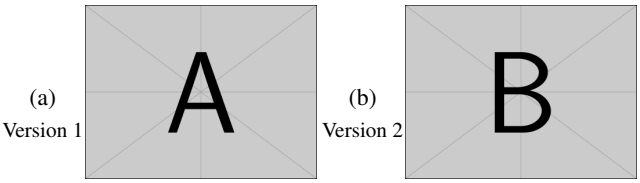
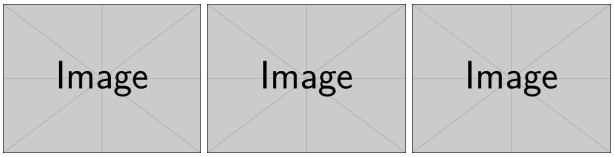
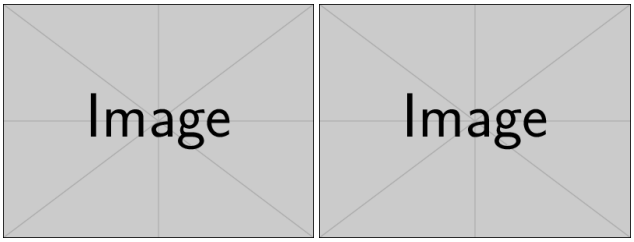



Figure 6. A figure with two sub-figures.




(a) Figure A




(b) Figure B (c) Figure C

Figure 7. A figure with three sub-figures.


Figure 8. A simple two-column figure.

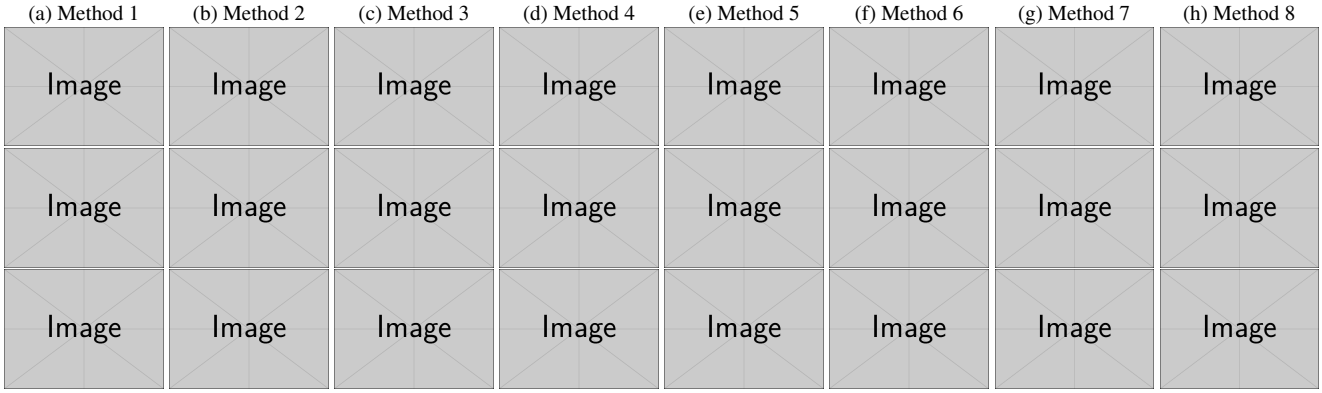



Figure 9. A two-column figure with multiple iamges and text header.

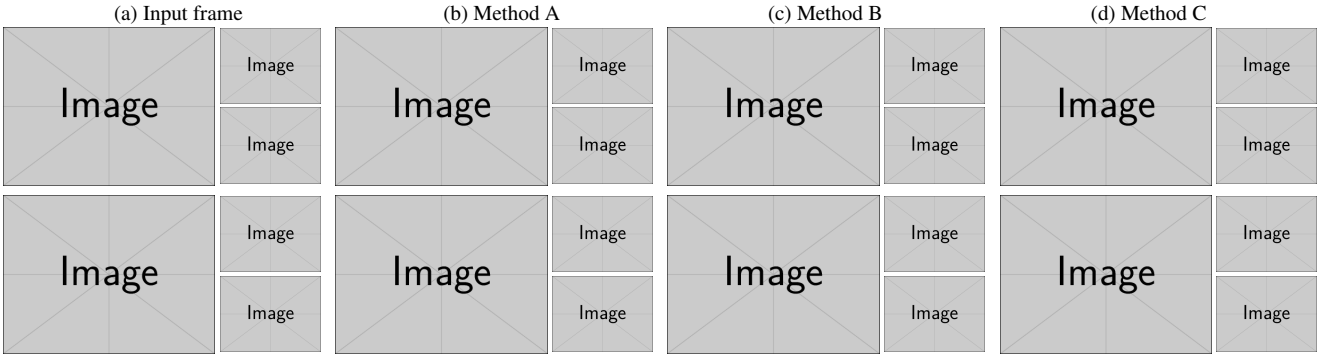
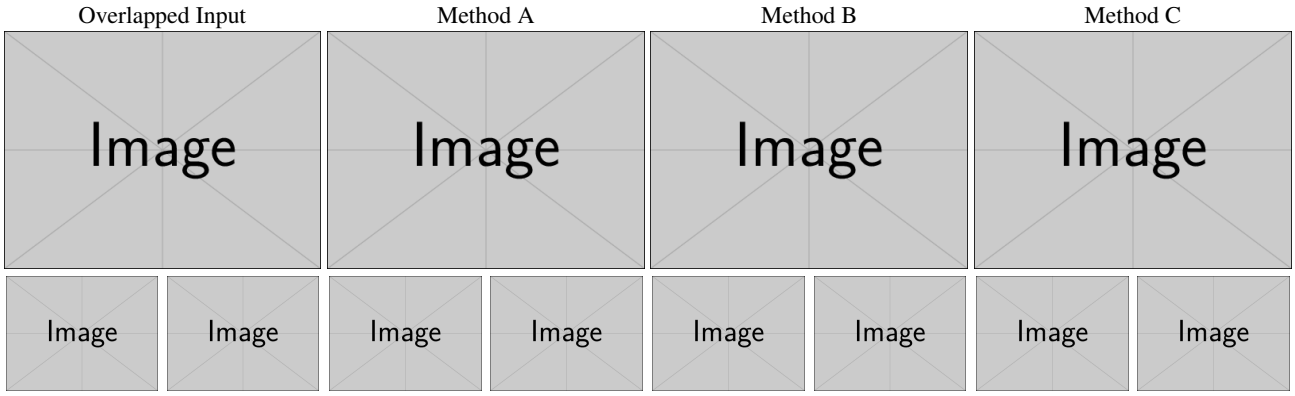
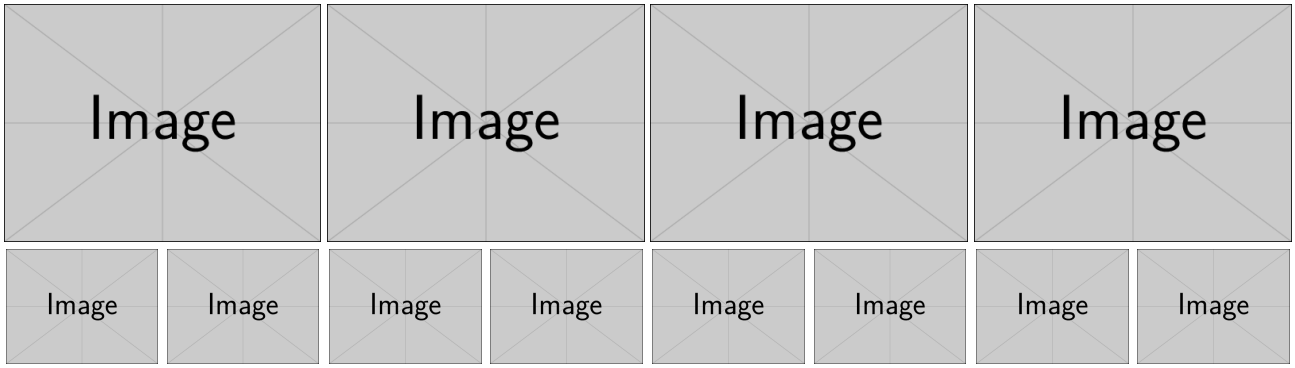



Figure 10. A figure with multiple images, each with two zoom-in patches (horizontal).




(a) Results on data A.




(a) Results on data B.

Figure 11. A figure with multiple images, each with two zoom-in patches (vertical).


Figure 12. Two figures placed side by side. Figure A (left).


Figure 13. Two figures placed side by side. Figure B (right).

Figure 14. A figure with caption at the right. This is useful for single-column paper (*e.g.*, ECCV), where space are limited.

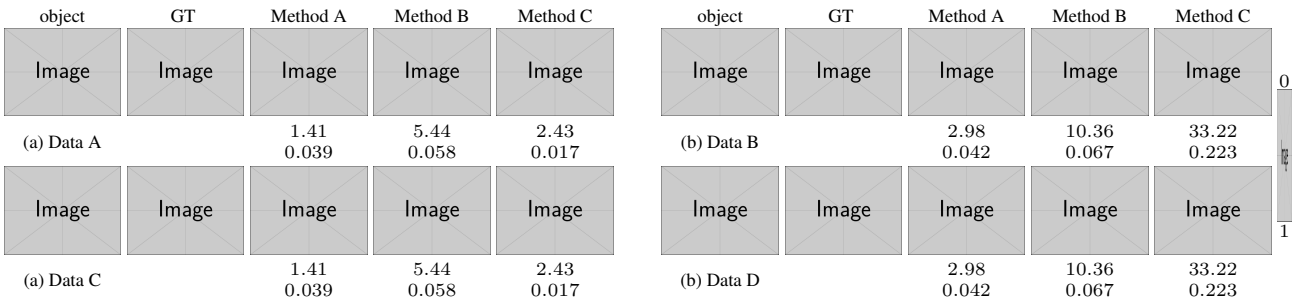



Figure 15. A figure with numeric results and color bar at the right.

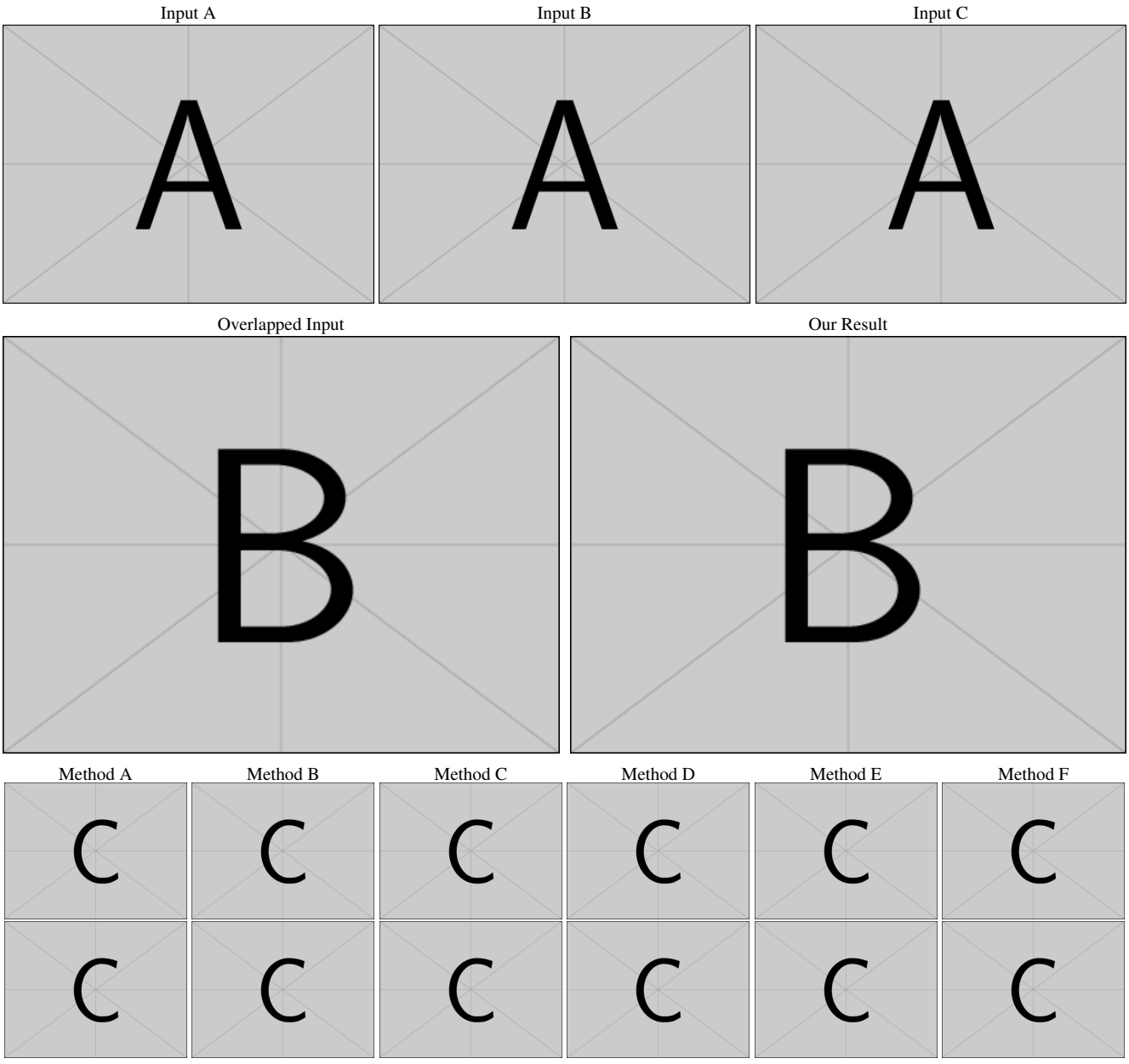



Figure 16. A figure with multi-level images.