

main

December 8, 2024

```
[1]: !pip install -r requirements.txt
```

```
Collecting appnope==0.1.4 (from -r requirements.txt (line 1))
  Downloading appnope-0.1.4-py2.py3-none-any.whl.metadata (908 bytes)
Collecting asttokens==2.4.1 (from -r requirements.txt (line 2))
  Downloading asttokens-2.4.1-py2.py3-none-any.whl.metadata (5.2 kB)
Requirement already satisfied: certifi==2024.8.30 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 3))
(2024.8.30)
Requirement already satisfied: charset-normalizer==3.4.0 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 4))
(3.4.0)
Collecting comm==0.2.2 (from -r requirements.txt (line 5))
  Downloading comm-0.2.2-py3-none-any.whl.metadata (3.7 kB)
Requirement already satisfied: contourpy==1.3.1 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 6))
(1.3.1)
Requirement already satisfied: cycycler==0.12.1 in /usr/local/lib/python3.10/dist-
packages (from -r requirements.txt (line 7)) (0.12.1)
Collecting debugpy==1.8.9 (from -r requirements.txt (line 8))
  Downloading debugpy-1.8.9-cp310-cp310-
manylinux_2_5_x86_64.manylinux1_x86_64.manylinux_2_17_x86_64.manylinux2014_x86_6
4.whl.metadata (1.1 kB)
Collecting decorator==5.1.1 (from -r requirements.txt (line 9))
  Downloading decorator-5.1.1-py3-none-any.whl.metadata (4.0 kB)
Collecting executing==2.1.0 (from -r requirements.txt (line 10))
  Downloading executing-2.1.0-py2.py3-none-any.whl.metadata (8.9 kB)
Requirement already satisfied: filelock==3.16.1 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 11))
(3.16.1)
Collecting fonttools==4.55.0 (from -r requirements.txt (line 12))
  Downloading fonttools-4.55.0-cp310-cp310-
manylinux_2_17_x86_64.manylinux2014_x86_64.whl.metadata (164 kB)
164.5/164.5
kB 9.7 MB/s eta 0:00:00
Requirement already satisfied: fsspec==2024.10.0 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 13))
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(2024.10.0)
Requirement already satisfied: idna==3.10 in /usr/local/lib/python3.10/dist-
packages (from -r requirements.txt (line 14)) (3.10)
Collecting ipykernel==6.29.5 (from -r requirements.txt (line 15))
  Downloading ipykernel-6.29.5-py3-none-any.whl.metadata (6.3 kB)
Collecting ipython==8.29.0 (from -r requirements.txt (line 16))
  Downloading ipython-8.29.0-py3-none-any.whl.metadata (5.0 kB)
Collecting jedi==0.19.2 (from -r requirements.txt (line 17))
  Downloading jedi-0.19.2-py2.py3-none-any.whl.metadata (22 kB)
Requirement already satisfied: Jinja2==3.1.4 in /usr/local/lib/python3.10/dist-
packages (from -r requirements.txt (line 18)) (3.1.4)
Collecting jupyter_client==8.6.3 (from -r requirements.txt (line 19))
  Downloading jupyter_client-8.6.3-py3-none-any.whl.metadata (8.3 kB)
Requirement already satisfied: jupyter_core==5.7.2 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 20))
(5.7.2)
Requirement already satisfied: kagglehub==0.3.4 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 21))
(0.3.4)
Requirement already satisfied: kiwisolver==1.4.7 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 22))
(1.4.7)
Requirement already satisfied: MarkupSafe==3.0.2 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 23))
(3.0.2)
Collecting matplotlib==3.9.3 (from -r requirements.txt (line 24))
  Downloading matplotlib-3.9.3-cp310-cp310-
manylinux_2_17_x86_64.manylinux2014_x86_64.whl.metadata (11 kB)
Requirement already satisfied: matplotlib-inline==0.1.7 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 25))
(0.1.7)
Requirement already satisfied: mpmath==1.3.0 in /usr/local/lib/python3.10/dist-
packages (from -r requirements.txt (line 26)) (1.3.0)
Requirement already satisfied: nest-asyncio==1.6.0 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 27))
(1.6.0)
Requirement already satisfied: networkx==3.4.2 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 28))
(3.4.2)
Requirement already satisfied: numpy==1.26.4 in /usr/local/lib/python3.10/dist-
packages (from -r requirements.txt (line 29)) (1.26.4)
Requirement already satisfied: opencv-contrib-python==4.10.0.84 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 30))
(4.10.0.84)
Requirement already satisfied: opencv-python==4.10.0.84 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 31))
(4.10.0.84)
Requirement already satisfied: opencv-python-headless==4.10.0.84 in

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/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 32))
(4.10.0.84)
Requirement already satisfied: packaging==24.2 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 33))
(24.2)
Collecting pandas==2.2.3 (from -r requirements.txt (line 34))
  Downloading
pandas-2.2.3-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl.metadata
(89 kB)
                                     89.9/89.9 kB
140.1 kB/s eta 0:00:00
Requirement already satisfied: parso==0.8.4 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 35))
(0.8.4)
Requirement already satisfied: pexpect==4.9.0 in /usr/local/lib/python3.10/dist-
packages (from -r requirements.txt (line 36)) (4.9.0)
Requirement already satisfied: pillow==11.0.0 in /usr/local/lib/python3.10/dist-
packages (from -r requirements.txt (line 37)) (11.0.0)
Requirement already satisfied: platformdirs==4.3.6 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 38))
(4.3.6)
Requirement already satisfied: prompt_toolkit==3.0.48 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 39))
(3.0.48)
Collecting psutil==6.1.0 (from -r requirements.txt (line 40))
  Downloading psutil-6.1.0-cp36-abi3-
manylinux_2_12_x86_64.manylinux2010_x86_64.manylinux_2_17_x86_64.manylinux2014_x
86_64.whl.metadata (22 kB)
Requirement already satisfied: ptyprocess==0.7.0 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 41))
(0.7.0)
Collecting pure_eval==0.2.3 (from -r requirements.txt (line 42))
  Downloading pure_eval-0.2.3-py3-none-any.whl.metadata (6.3 kB)
Requirement already satisfied: py-cpuinfo==9.0.0 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 43))
(9.0.0)
Requirement already satisfied: Pygments==2.18.0 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 44))
(2.18.0)
Requirement already satisfied: pyparsing==3.2.0 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 45))
(3.2.0)
Collecting python-dateutil==2.9.0.post0 (from -r requirements.txt (line 46))
  Downloading python_dateutil-2.9.0.post0-py2.py3-none-any.whl.metadata (8.4 kB)
Requirement already satisfied: pytz==2024.2 in /usr/local/lib/python3.10/dist-
packages (from -r requirements.txt (line 47)) (2024.2)
Requirement already satisfied: PyYAML==6.0.2 in /usr/local/lib/python3.10/dist-
packages (from -r requirements.txt (line 48)) (6.0.2)

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Collecting pyzmq==26.2.0 (from -r requirements.txt (line 49))
  Downloading pyzmq-26.2.0-cp310-cp310-manylinux_2_28_x86_64.whl.metadata (6.2
kB)
Requirement already satisfied: requests==2.32.3 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 50))
(2.32.3)
Collecting scipy==1.14.1 (from -r requirements.txt (line 51))
  Downloading
scipy-1.14.1-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl.metadata
(60 kB)
                                     60.8/60.8 kB
5.7 MB/s eta 0:00:00
Requirement already satisfied: seaborn==0.13.2 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 52))
(0.13.2)
Requirement already satisfied: six==1.16.0 in /usr/local/lib/python3.10/dist-
packages (from -r requirements.txt (line 53)) (1.16.0)
Collecting stack-data==0.6.3 (from -r requirements.txt (line 54))
  Downloading stack_data-0.6.3-py3-none-any.whl.metadata (18 kB)
Requirement already satisfied: sympy==1.13.1 in /usr/local/lib/python3.10/dist-
packages (from -r requirements.txt (line 55)) (1.13.1)
Requirement already satisfied: torch==2.5.1 in /usr/local/lib/python3.10/dist-
packages (from -r requirements.txt (line 56)) (2.5.1+cu121)
Requirement already satisfied: torchvision==0.20.1 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 57))
(0.20.1+cu121)
Collecting tornado==6.4.2 (from -r requirements.txt (line 58))
  Downloading tornado-6.4.2-cp38-abi3-
manylinux_2_5_x86_64.manylinux1_x86_64.manylinux_2_17_x86_64.manylinux2014_x86_6
4.whl.metadata (2.5 kB)
Collecting tqdm==4.67.1 (from -r requirements.txt (line 59))
  Downloading tqdm-4.67.1-py3-none-any.whl.metadata (57 kB)
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4.9 MB/s eta 0:00:00
Collecting traitlets==5.14.3 (from -r requirements.txt (line 60))
  Downloading traitlets-5.14.3-py3-none-any.whl.metadata (10 kB)
Requirement already satisfied: typing_extensions==4.12.2 in
/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 61))
(4.12.2)
Requirement already satisfied: tzdata==2024.2 in /usr/local/lib/python3.10/dist-
packages (from -r requirements.txt (line 62)) (2024.2)
Collecting ultralytics==8.3.39 (from -r requirements.txt (line 63))
  Downloading ultralytics-8.3.39-py3-none-any.whl.metadata (35 kB)
Collecting ultralytics-thop==2.0.12 (from -r requirements.txt (line 64))
  Downloading ultralytics_thop-2.0.12-py3-none-any.whl.metadata (9.4 kB)
Requirement already satisfied: urllib3==2.2.3 in /usr/local/lib/python3.10/dist-
packages (from -r requirements.txt (line 65)) (2.2.3)
Requirement already satisfied: wcwidth==0.2.13 in

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/usr/local/lib/python3.10/dist-packages (from -r requirements.txt (line 66))
(0.2.13)
Requirement already satisfied: exceptiongroup in /usr/local/lib/python3.10/dist-
packages (from ipython==8.29.0->-r requirements.txt (line 16)) (1.2.2)
Downloading appnope-0.1.4-py2.py3-none-any.whl (4.3 kB)
Downloading asttokens-2.4.1-py2.py3-none-any.whl (27 kB)
Downloading comm-0.2.2-py3-none-any.whl (7.2 kB)
Downloading debugpy-1.8.9-cp310-cp310-
manylinux_2_5_x86_64.manylinux1_x86_64.manylinux_2_17_x86_64.manylinux2014_x86_6
4.whl (3.6 MB)
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Downloading decorator-5.1.1-py3-none-any.whl (9.1 kB)
Downloading executing-2.1.0-py2.py3-none-any.whl (25 kB)
Downloading
fonttools-4.55.0-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (4.6
MB)
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Downloading ipykernel-6.29.5-py3-none-any.whl (117 kB)
117.2/117.2 kB
11.3 MB/s eta 0:00:00
Downloading ipython-8.29.0-py3-none-any.whl (819 kB)
819.9/819.9 kB
51.9 MB/s eta 0:00:00
Downloading jedi-0.19.2-py2.py3-none-any.whl (1.6 MB)
1.6/1.6 MB
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Downloading jupyter_client-8.6.3-py3-none-any.whl (106 kB)
106.1/106.1 kB
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Downloading
matplotlib-3.9.3-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (8.3
MB)
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Downloading
pandas-2.2.3-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (13.1
MB)
13.1/13.1 MB
111.1 MB/s eta 0:00:00
Downloading psutil-6.1.0-cp36-abi3-
manylinux_2_12_x86_64.manylinux2010_x86_64.manylinux_2_17_x86_64.manylinux2014_x
86_64.whl (287 kB)
287.3/287.3 kB
25.5 MB/s eta 0:00:00
Downloading pure_eval-0.2.3-py3-none-any.whl (11 kB)
Downloading python_dateutil-2.9.0.post0-py2.py3-none-any.whl (229 kB)

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229.9/229.9 kB
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Downloading pyzmq-26.2.0-cp310-cp310-manylinux_2_28_x86_64.whl (868 kB)
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scipy-1.14.1-cp310-cp310-manylinux_2_17_x86_64.manylinux2014_x86_64.whl (41.2 MB)
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Downloading stack_data-0.6.3-py3-none-any.whl (24 kB)
Downloading tornado-6.4.2-cp38-abi3-
manylinux_2_5_x86_64.manylinux1_x86_64.manylinux_2_17_x86_64.manylinux2014_x86_6
4.whl (437 kB)
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Downloading tqdm-4.67.1-py3-none-any.whl (78 kB)
78.5/78.5 kB
7.6 MB/s eta 0:00:00
Downloading traitlets-5.14.3-py3-none-any.whl (85 kB)
85.4/85.4 kB
8.8 MB/s eta 0:00:00
Downloading ultralytics-8.3.39-py3-none-any.whl (896 kB)
896.9/896.9 kB
57.3 MB/s eta 0:00:00
Downloading ultralytics_thop-2.0.12-py3-none-any.whl (26 kB)
Installing collected packages: pure_eval, traitlets, tqdm, tornado, scipy,
pyzmq, python-dateutil, psutil, jedi, fonttools, executing, decorator, debugpy,
asttokens, appnope, stack-data, pandas, matplotlib, comm, ultralytics-thop,
jupyter_client, ipython, ultralytics, ipykernel
Attempting uninstall: traitlets
  Found existing installation: traitlets 5.7.1
  Uninstalling traitlets-5.7.1:
    Successfully uninstalled traitlets-5.7.1
Attempting uninstall: tqdm
  Found existing installation: tqdm 4.66.6
  Uninstalling tqdm-4.66.6:
    Successfully uninstalled tqdm-4.66.6
Attempting uninstall: tornado
  Found existing installation: tornado 6.3.3
  Uninstalling tornado-6.3.3:
    Successfully uninstalled tornado-6.3.3
Attempting uninstall: scipy
  Found existing installation: scipy 1.13.1
  Uninstalling scipy-1.13.1:
    Successfully uninstalled scipy-1.13.1
Attempting uninstall: pyzmq
  Found existing installation: pyzmq 24.0.1

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Uninstalling pyzmq-24.0.1:
 Successfully uninstalled pyzmq-24.0.1
Attempting uninstall: python-dateutil
 Found existing installation: python-dateutil 2.8.2
 Uninstalling python-dateutil-2.8.2:
 Successfully uninstalled python-dateutil-2.8.2
Attempting uninstall: psutil
 Found existing installation: psutil 5.9.5
 Uninstalling psutil-5.9.5:
 Successfully uninstalled psutil-5.9.5
Attempting uninstall: fonttools
 Found existing installation: fonttools 4.55.1
 Uninstalling fonttools-4.55.1:
 Successfully uninstalled fonttools-4.55.1
Attempting uninstall: decorator
 Found existing installation: decorator 4.4.2
 Uninstalling decorator-4.4.2:
 Successfully uninstalled decorator-4.4.2
Attempting uninstall: debugpy
 Found existing installation: debugpy 1.8.0
 Uninstalling debugpy-1.8.0:
 Successfully uninstalled debugpy-1.8.0
Attempting uninstall: pandas
 Found existing installation: pandas 2.2.2
 Uninstalling pandas-2.2.2:
 Successfully uninstalled pandas-2.2.2
Attempting uninstall: matplotlib
 Found existing installation: matplotlib 3.8.0
 Uninstalling matplotlib-3.8.0:
 Successfully uninstalled matplotlib-3.8.0
Attempting uninstall: jupyter_client
 Found existing installation: jupyter-client 6.1.12
 Uninstalling jupyter-client-6.1.12:
 Successfully uninstalled jupyter-client-6.1.12
Attempting uninstall: ipython
 Found existing installation: ipython 7.34.0
 Uninstalling ipython-7.34.0:
 Successfully uninstalled ipython-7.34.0
Attempting uninstall: ipykernel
 Found existing installation: ipykernel 5.5.6
 Uninstalling ipykernel-5.5.6:
 Successfully uninstalled ipykernel-5.5.6

ERROR: pip's dependency resolver does not currently take into account all the packages that are installed. This behaviour is the source of the following dependency conflicts.

cudf-cu12 24.10.1 requires pandas<2.2.3dev0,>=2.0, but you have pandas 2.2.3 which is incompatible.

gensim 4.3.3 requires scipy<1.14.0,>=1.7.0, but you have scipy 1.14.1 which is incompatible.

google-colab 1.0.0 requires ipykernel==5.5.6, but you have ipykernel 6.29.5 which is incompatible.

google-colab 1.0.0 requires ipython==7.34.0, but you have ipython 8.29.0 which is incompatible.

google-colab 1.0.0 requires pandas==2.2.2, but you have pandas 2.2.3 which is incompatible.

google-colab 1.0.0 requires tornado==6.3.3, but you have tornado 6.4.2 which is incompatible.

moviepy 1.0.3 requires decorator<5.0,>=4.0.2, but you have decorator 5.1.1 which is incompatible.

notebook 6.5.5 requires jupyter-client<8,>=5.3.4, but you have jupyter-client 8.6.3 which is incompatible.

notebook 6.5.5 requires pyzmq<25,>=17, but you have pyzmq 26.2.0 which is incompatible.

Successfully installed appnope-0.1.4 asttokens-2.4.1 comm-0.2.2
debugpy-1.8.9 decorator-5.1.1 executing-2.1.0 fonttools-4.55.0 ipykernel-6.29.5
ipython-8.29.0 jedi-0.19.2 jupyter_client-8.6.3 matplotlib-3.9.3 pandas-2.2.3
psutil-6.1.0 pure_eval-0.2.3 python-dateutil-2.9.0.post0 pyzmq-26.2.0
scipy-1.14.1 stack-data-0.6.3 tornado-6.4.2 tqdm-4.67.1 traitlets-5.14.3
ultralitics-8.3.39 ultralytics-thop-2.0.12

```
[7]: import cv2
import kagglehub
from ultralytics import YOLO
import os
import matplotlib.pyplot as plt
import shutil
from sklearn.model_selection import train_test_split
```


0.1 Gather the dataset

```
[8]: # Download latest version
path = kagglehub.dataset_download("semiemptyglass/cyclist-dataset")
dataset_path = os.path.join(path, "data_tsinghua")
images_path = os.path.join(dataset_path, "images")
labels_path = os.path.join(dataset_path, "labels")
```

0.2 EDA

```
[41]: # Count image and label files
image_files = os.listdir(images_path)
label_files = os.listdir(labels_path)

print(f"Number of images: {len(image_files)}")
print(f"Number of labels: {len(label_files)}")

# Check for mismatched files
missing_labels = [img for img in image_files if os.path.splitext(img)[0] + ".
↳txt" not in label_files]
print(f"Images without labels: {len(missing_labels)}")
```

Number of images: 13674
Number of labels: 13674
Images without labels: 0

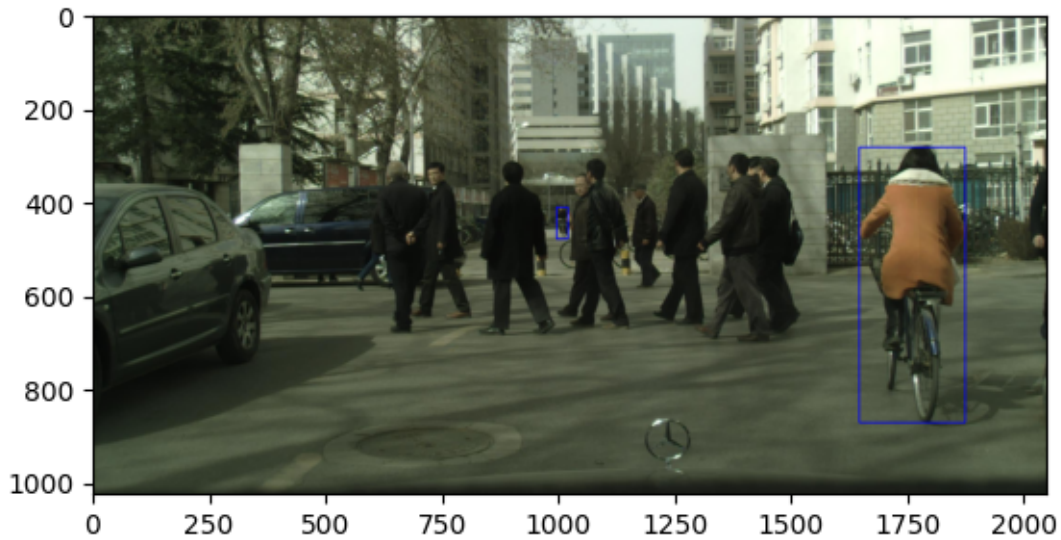
0.2.1 Preview Annotated Image

```
[42]: # Display a random image with its annotations
image_file = os.path.join(images_path, image_files[0])
label_file = os.path.join(labels_path, os.path.splitext(image_files[0])[0] + ".
↳txt")

image = cv2.imread(image_file)
with open(label_file, "r") as f:
    annotations = f.readlines()

for ann in annotations:
    cls, x_center, y_center, width, height = map(float, ann.split())
    h, w, _ = image.shape
    x1, y1, x2, y2 = int((x_center - width / 2) * w), int((y_center - height /
↳2) * h), int((x_center + width / 2) * w), int((y_center + height / 2) * h)
    cv2.rectangle(image, (x1, y1), (x2, y2), (255, 0, 0), 2)

plt.imshow(cv2.cvtColor(image, cv2.COLOR_BGR2RGB))
plt.show()
```



0.2.2 Image Data Analysis

```
[43]: # Initialize lists for image dimensions
heights = []
widths = []

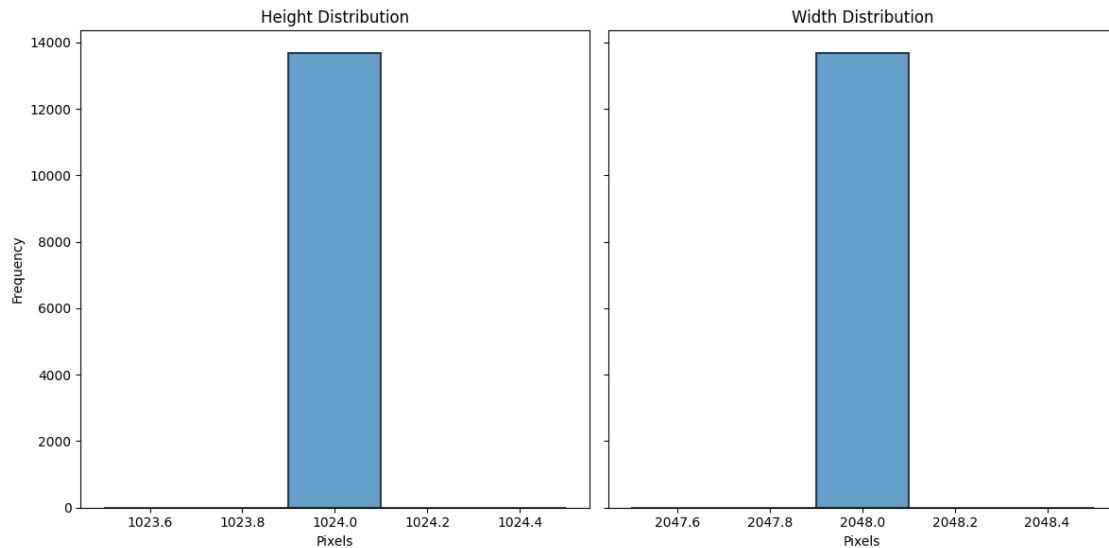
# Loop through images
for image_file in os.listdir(images_path):
    image_path = os.path.join(images_path, image_file)
    image = cv2.imread(image_path)
    if image is not None:
        h, w, _ = image.shape
        heights.append(h)
        widths.append(w)

[44]: # Create subplots
fig, axes = plt.subplots(1, 2, figsize=(12, 6), sharey=True)

# Heights histogram
axes[0].hist(heights, bins=5, alpha=0.7, edgecolor='black', linewidth=1.5)
axes[0].set_title("Height Distribution")
axes[0].set_xlabel("Pixels")
axes[0].set_ylabel("Frequency")

# Widths histogram
axes[1].hist(widths, bins=5, alpha=0.7, edgecolor='black', linewidth=1.5)
axes[1].set_title("Width Distribution")
axes[1].set_xlabel("Pixels")
```

```
# Adjust layout and show
plt.tight_layout()
plt.show()
```



0.2.3 Color Profiles

```
[45]: # Count RGB and grayscale images
rgb_count = 0
grayscale_count = 0

for image_file in os.listdir(images_path):
    image_path = os.path.join(images_path, image_file)
    image = cv2.imread(image_path)
    if image is not None:
        if len(image.shape) == 3 and image.shape[2] == 3:
            rgb_count += 1
        else:
            grayscale_count += 1

print(f"RGB images: {rgb_count}")
print(f"Grayscale images: {grayscale_count}")
```

```
RGB images: 13674
Grayscale images: 0
```

0.2.4 EDA - Conclusion

The cyclist dataset provided contains clean data. All 13674 images have labels and have the same dimensions: 1024 x 2048.

All images have RGB colored profile.

0.3 Function to draw bounding boxes

```
[46]: def draw_bounding_boxes(image_path, label_path, write_image = False, filename = '')[46]:
    ↪ '):
        # Load the image
        img = cv2.imread(image_path)
        if img is None:
            raise FileNotFoundError(f"Image not found at {image_path}")
        height, width, _ = img.shape

        # Read YOLO labels
        with open(label_path, 'r') as file:
            lines = file.readlines()

        for line in lines:
            label = line.strip().split()
            class_id, center_x, center_y, box_width, box_height = map(float, label)

            # Convert YOLO format to OpenCV rectangle format
            x1 = int((center_x - box_width / 2) * width)
            y1 = int((center_y - box_height / 2) * height)
            x2 = int((center_x + box_width / 2) * width)
            y2 = int((center_y + box_height / 2) * height)

            # Draw rectangle on the image
            cv2.rectangle(img, (x1, y1), (x2, y2), (255, 0, 0), 2)

        # Convert BGR image to RGB for display
        img_rgb = cv2.cvtColor(img, cv2.COLOR_BGR2RGB)

        if write_image:
            cv2.imwrite(f'video_frames_with_bounding_boxes/{filename}.jpg', img_rgb)
        else:
            # Display the image with bounding boxes in Jupyter
            plt.imshow(img_rgb)
            plt.axis('off') # Turn off axis
            plt.show()

    # Example usage:
    # image_path = f"{path}/data_tsinghua/images/000000.jpg"
    # label_path = f"{path}/data_tsinghua/labels/000000.txt"
```

```
# draw_bounding_boxes(image_path, label_path)
```

0.4 Data Preparation for Training

```
[14]: # Create output directories for splits
output_dirs = {
    "train": {"images": "/content/splits/train/images", "labels": "/content/
↳ splits/train/labels"},
    "val": {"images": "/content/splits/val/images", "labels": "/content/splits/
↳ val/labels"},
    "test": {"images": "/content/splits/test/images", "labels": "/content/
↳ splits/test/labels"},
}

for split, paths in output_dirs.items():
    os.makedirs(paths["images"], exist_ok=True)
    os.makedirs(paths["labels"], exist_ok=True)

# List all image files
image_files = [f for f in os.listdir(images_path) if f.endswith((".jpg", ".
↳ png"))]

# Split data (70% train, 20% val, 10% test)
train_files, test_files = train_test_split(image_files, test_size=0.1,
↳ random_state=42)
train_files, val_files = train_test_split(train_files, test_size=0.2,
↳ random_state=42)

# Helper function to copy images and corresponding labels
def copy_files(file_list, split_type):
    for file_name in file_list:
        # Copy image
        shutil.copy(
            os.path.join(images_path, file_name),
            os.path.join(output_dirs[split_type]["images"], file_name),
        )
        # Copy label (ensure label file exists)
        label_file = file_name.replace(".jpg", ".txt").replace(".png", ".txt")
        if os.path.exists(os.path.join(labels_path, label_file)):
            shutil.copy(
                os.path.join(labels_path, label_file),
                os.path.join(output_dirs[split_type]["labels"], label_file),
            )

# Copy files into respective directories
copy_files(train_files, "train")
```

```

copy_files(val_files, "val")
copy_files(test_files, "test")

# Verify the dataset structure
print("Dataset split completed:")
for split, paths in output_dirs.items():
    print(f"{split} -> Images: {len(os.listdir(paths['images']))}, Labels: {len(os.listdir(paths['labels']))}")

```

```

Dataset split completed:
train -> Images: 9844, Labels: 9844
val -> Images: 2462, Labels: 2462
test -> Images: 1368, Labels: 1368

```

0.5 Code to create the model

```

[15]: # Create a config to train the model
data_yaml = """
train: /content/splits/train
val: /content/splits/val
test: /content/splits/test

nc: 1
names: ['cyclist']
"""

yaml_path = os.path.join("/content", "cyclist_dataset.yaml")
with open(yaml_path, "w") as f:
    f.write(data_yaml)

print(f"YAML configuration saved to: {yaml_path}")

```

```

YAML configuration saved to: /content/cyclist_dataset.yaml

```

```

[16]: # Train YOLOv8 model
model = YOLO("yolov8n.pt")

model.train(
    data=yaml_path,
    epochs=50,
    imgsz=1280,
    batch=32,
    workers=8,
    device=0,
    save=True,
    save_period=5
)

```

Downloading

<https://github.com/ultralytics/assets/releases/download/v8.3.0/yolov8n.pt> to
'yolov8n.pt'...

100%| | 6.25M/6.25M [00:00<00:00, 372MB/s]

New <https://pypi.org/project/ultralytics/8.3.47> available Update with 'pip
install -U ultralytics'

Ultralytics 8.3.39 Python-3.10.12 torch-2.5.1+cu121 CUDA:0 (NVIDIA
A100-SXM4-40GB, 40514MiB)

engine/trainer: task=detect, mode=train, model=yolov8n.pt,
data=/content/cyclist_dataset.yaml, epochs=50, time=None, patience=100,
batch=32, imgsz=1280, save=True, save_period=5, cache=False, device=0,
workers=8, project=None, name=train, exist_ok=False, pretrained=True,
optimizer=auto, verbose=True, seed=0, deterministic=True, single_cls=False,
rect=False, cos_lr=False, close_mosaic=10, resume=False, amp=True, fraction=1.0,
profile=False, freeze=None, multi_scale=False, overlap_mask=True, mask_ratio=4,
dropout=0.0, val=True, split=val, save_json=False, save_hybrid=False, conf=None,
iou=0.7, max_det=300, half=False, dnn=False, plots=True, source=None,
vid_stride=1, stream_buffer=False, visualize=False, augment=False,
agnostic_nms=False, classes=None, retina_masks=False, embed=None, show=False,
save_frames=False, save_txt=False, save_conf=False, save_crop=False,
show_labels=True, show_conf=True, show_boxes=True, line_width=None,
format=torchscript, keras=False, optimize=False, int8=False, dynamic=False,
simplify=True, opset=None, workspace=None, nms=False, lr0=0.01, lrf=0.01,
momentum=0.937, weight_decay=0.0005, warmup_epochs=3.0, warmup_momentum=0.8,
warmup_bias_lr=0.1, box=7.5, cls=0.5, dfl=1.5, pose=12.0, kobj=1.0, nbs=64,
hsv_h=0.015, hsv_s=0.7, hsv_v=0.4, degrees=0.0, translate=0.1, scale=0.5,
shear=0.0, perspective=0.0, flipud=0.0, fliplr=0.5, bgr=0.0, mosaic=1.0,
mixup=0.0, copy_paste=0.0, copy_paste_mode=flip, auto_augment=randaugument,
erasing=0.4, crop_fraction=1.0, cfg=None, tracker=botsort.yaml,
save_dir=runs/detect/train

Downloading <https://ultralytics.com/assets/Arial.ttf> to
'/root/.config/Ultralytics/Arial.ttf'...

100%| | 755k/755k [00:00<00:00, 129MB/s]

Overriding model.yaml nc=80 with nc=1

	from	n	params	module
arguments				
0	-1	1	464	ultralytics.nn.modules.conv.Conv
[3, 16, 3, 2]				
1	-1	1	4672	ultralytics.nn.modules.conv.Conv
[16, 32, 3, 2]				
2	-1	1	7360	ultralytics.nn.modules.block.C2f
[32, 32, 1, True]				
3	-1	1	18560	ultralytics.nn.modules.conv.Conv

[32, 64, 3, 2]				
4	-1	2	49664	ultralytics.nn.modules.block.C2f
[64, 64, 2, True]				
5	-1	1	73984	ultralytics.nn.modules.conv.Conv
[64, 128, 3, 2]				
6	-1	2	197632	ultralytics.nn.modules.block.C2f
[128, 128, 2, True]				
7	-1	1	295424	ultralytics.nn.modules.conv.Conv
[128, 256, 3, 2]				
8	-1	1	460288	ultralytics.nn.modules.block.C2f
[256, 256, 1, True]				
9	-1	1	164608	ultralytics.nn.modules.block.SPPF
[256, 256, 5]				
10	-1	1	0	torch.nn.modules.upsampling.Upsample
[None, 2, 'nearest']				
11	[-1, 6]	1	0	ultralytics.nn.modules.conv.Concat
[1]				
12	-1	1	148224	ultralytics.nn.modules.block.C2f
[384, 128, 1]				
13	-1	1	0	torch.nn.modules.upsampling.Upsample
[None, 2, 'nearest']				
14	[-1, 4]	1	0	ultralytics.nn.modules.conv.Concat
[1]				
15	-1	1	37248	ultralytics.nn.modules.block.C2f
[192, 64, 1]				
16	-1	1	36992	ultralytics.nn.modules.conv.Conv
[64, 64, 3, 2]				
17	[-1, 12]	1	0	ultralytics.nn.modules.conv.Concat
[1]				
18	-1	1	123648	ultralytics.nn.modules.block.C2f
[192, 128, 1]				
19	-1	1	147712	ultralytics.nn.modules.conv.Conv
[128, 128, 3, 2]				
20	[-1, 9]	1	0	ultralytics.nn.modules.conv.Concat
[1]				
21	-1	1	493056	ultralytics.nn.modules.block.C2f
[384, 256, 1]				
22	[15, 18, 21]	1	751507	ultralytics.nn.modules.head.Detect
[1, [64, 128, 256]]				

Model summary: 225 layers, 3,011,043 parameters, 3,011,027 gradients, 8.2 GFLOPs

Transferred 319/355 items from pretrained weights

TensorBoard: Start with 'tensorboard --logdir runs/detect/train',
view at <http://localhost:6006/>

Freezing layer 'model.22.dfl.conv.weight'

AMP: running Automatic Mixed Precision (AMP) checks...

Downloading

<https://github.com/ultralytics/assets/releases/download/v8.3.0/yolo11n.pt> to


```

'yolo11n.pt'...
100%|      | 5.35M/5.35M [00:00<00:00, 362MB/s]

AMP: checks passed

train: Scanning /content/splits/train/labels... 9844 images, 1219
backgrounds, 0 corrupt: 100%|      | 9844/9844 [00:07<00:00, 1253.05it/s]

train: New cache created: /content/splits/train/labels.cache
augmentations: Blur(p=0.01, blur_limit=(3, 7)), MedianBlur(p=0.01,
blur_limit=(3, 7)), ToGray(p=0.01, num_output_channels=3,
method='weighted_average'), CLAHE(p=0.01, clip_limit=(1.0, 4.0),
tile_grid_size=(8, 8))

/usr/local/lib/python3.10/dist-packages/albumentations/__init__.py:24:
UserWarning: A new version of Albumentations is available: 1.4.22 (you have
1.4.20). Upgrade using: pip install -U albumentations. To disable automatic
update checks, set the environment variable NO_ALBUMENTATIONS_UPDATE to 1.
  check_for_updates()
val: Scanning /content/splits/val/labels... 2462 images, 266
backgrounds, 0 corrupt: 100%|      | 2462/2462 [00:02<00:00, 1119.86it/s]

val: New cache created: /content/splits/val/labels.cache
Plotting labels to runs/detect/train/labels.jpg...
optimizer: 'optimizer=auto' found, ignoring 'lr0=0.01' and
'momentum=0.937' and determining best 'optimizer', 'lr0' and 'momentum'
automatically...
optimizer: AdamW(lr=0.002, momentum=0.9) with parameter groups 57
weight(decay=0.0), 64 weight(decay=0.0005), 63 bias(decay=0.0)
TensorBoard: model graph visualization added
Image sizes 1280 train, 1280 val
Using 8 dataloader workers
Logging results to runs/detect/train
Starting training for 50 epochs...

      Epoch      GPU_mem    box_loss    cls_loss    dfl_loss  Instances      Size
      1/50         17G       0.8962       2.157       0.9165         53      1280:
100%|      | 308/308 [01:51<00:00, 2.77it/s]
      Class      Images  Instances      Box(P          R      mAP50
mAP50-95): 100%|      | 39/39 [00:12<00:00, 3.12it/s]
              all         2462         3980         0.838         0.764         0.848
0.656

      Epoch      GPU_mem    box_loss    cls_loss    dfl_loss  Instances      Size
      2/50        16.6G       0.8728       0.902       0.921         70      1280:
100%|      | 308/308 [01:49<00:00, 2.81it/s]
      Class      Images  Instances      Box(P          R      mAP50
mAP50-95): 100%|      | 39/39 [00:11<00:00, 3.54it/s]

```

	all	2462	3980	0.873	0.795	0.882
--	-----	------	------	-------	-------	-------

0.705

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
3/50	16.4G	0.8482	0.7613	0.9167	54	1280:
100%	308/308	[01:48<00:00, 2.85it/s]				
	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%	39/39	[00:11<00:00, 3.43it/s]				

	all	2462	3980	0.851	0.816	0.876
--	-----	------	------	-------	-------	-------

0.687

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
4/50	16.6G	0.8367	0.718	0.9116	56	1280:
100%	308/308	[01:48<00:00, 2.84it/s]				
	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%	39/39	[00:11<00:00, 3.51it/s]				

	all	2462	3980	0.877	0.824	0.897
--	-----	------	------	-------	-------	-------

0.703

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
5/50	16.4G	0.8007	0.6649	0.9001	63	1280:
100%	308/308	[01:48<00:00, 2.83it/s]				
	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%	39/39	[00:11<00:00, 3.39it/s]				

	all	2462	3980	0.887	0.84	0.911
--	-----	------	------	-------	------	-------

0.748

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
6/50	16.6G	0.7689	0.6296	0.8909	79	1280:
100%	308/308	[01:49<00:00, 2.81it/s]				
	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%	39/39	[00:11<00:00, 3.45it/s]				

	all	2462	3980	0.907	0.849	0.922
--	-----	------	------	-------	-------	-------

0.757

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
7/50	16.6G	0.7442	0.6014	0.8833	49	1280:
100%	308/308	[01:48<00:00, 2.84it/s]				

	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%		39/39	[00:11<00:00,	3.52it/s]		
	all	2462	3980	0.903	0.856	0.93

0.763

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
8/50	16.5G	0.7311	0.5813	0.879	69	1280:
100%	308/308	[01:48<00:00,	2.83it/s]			
	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%		39/39	[00:11<00:00,	3.44it/s]		
	all	2462	3980	0.908	0.855	0.925

0.777

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
9/50	16.5G	0.7178	0.5686	0.8765	69	1280:
100%	308/308	[01:49<00:00,	2.81it/s]			
	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%		39/39	[00:10<00:00,	3.61it/s]		
	all	2462	3980	0.908	0.877	0.937

0.784

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
10/50	16.5G	0.7038	0.5469	0.8702	68	1280:
100%	308/308	[01:47<00:00,	2.86it/s]			
	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%		39/39	[00:11<00:00,	3.32it/s]		
	all	2462	3980	0.905	0.879	0.934

0.781

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
11/50	16.5G	0.6955	0.5396	0.8671	72	1280:
100%	308/308	[01:48<00:00,	2.84it/s]			
	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%		39/39	[00:10<00:00,	3.60it/s]		

all 2462 3980 0.917 0.872 0.941
0.792

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
12/50	16.4G	0.6812	0.5203	0.8638	84	1280:
100%	308/308	[01:48<00:00,	2.84it/s]			
	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%	39/39	[00:10<00:00,	3.55it/s]			

all 2462 3980 0.922 0.867 0.942
0.8

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
13/50	16.4G	0.6722	0.5127	0.8615	61	1280:
100%	308/308	[01:48<00:00,	2.83it/s]			
	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%	39/39	[00:11<00:00,	3.38it/s]			

all 2462 3980 0.918 0.891 0.95
0.801

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
14/50	16.4G	0.6705	0.5025	0.8601	63	1280:
100%	308/308	[01:49<00:00,	2.82it/s]			
	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%	39/39	[00:11<00:00,	3.51it/s]			

all 2462 3980 0.915 0.889 0.947
0.804

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
15/50	16.5G	0.6587	0.4897	0.8577	72	1280:
100%	308/308	[01:48<00:00,	2.83it/s]			
	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%	39/39	[00:11<00:00,	3.52it/s]			

all 2462 3980 0.911 0.891 0.946
0.808

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
16/50	16.5G	0.6494	0.4846	0.8569	68	1280:
100%	308/308	[01:49<00:00,	2.80it/s]			

	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%	39/39	[00:11<00:00,	3.47it/s]			
	all	2462	3980	0.911	0.893	0.949
0.817						

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
17/50	16.6G	0.6427	0.4719	0.852	76	1280:
100%	308/308	[01:48<00:00,	2.83it/s]			
	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%	39/39	[00:11<00:00,	3.47it/s]			
	all	2462	3980	0.934	0.892	0.957
0.819						

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
18/50	16.4G	0.6362	0.4644	0.8534	59	1280:
100%	308/308	[01:49<00:00,	2.82it/s]			
	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%	39/39	[00:10<00:00,	3.66it/s]			
	all	2462	3980	0.925	0.894	0.953
0.819						

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
19/50	16.6G	0.6286	0.4548	0.8502	60	1280:
100%	308/308	[01:48<00:00,	2.84it/s]			
	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%	39/39	[00:11<00:00,	3.44it/s]			
	all	2462	3980	0.918	0.908	0.957
0.827						

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
20/50	16.5G	0.627	0.4507	0.8498	43	1280:
100%	308/308	[01:48<00:00,	2.83it/s]			
	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%	39/39	[00:11<00:00,	3.40it/s]			
	all	2462	3980	0.93	0.902	0.96
0.827						

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
-------	---------	----------	----------	----------	-----------	------

```

21/50      16.4G      0.6201      0.4441      0.8478      81      1280:
100%|      | 308/308 [01:48<00:00, 2.83it/s]
      Class      Images  Instances      Box(P      R      mAP50
mAP50-95): 100%|      | 39/39 [00:11<00:00, 3.37it/s]
      all      2462      3980      0.936      0.899      0.963
0.835

```

```

Epoch      GPU_mem      box_loss      cls_loss      dfl_loss  Instances      Size
22/50      16.4G      0.619      0.4393      0.8498      73      1280:
100%|      | 308/308 [01:49<00:00, 2.81it/s]
      Class      Images  Instances      Box(P      R      mAP50
mAP50-95): 100%|      | 39/39 [00:10<00:00, 3.58it/s]
      all      2462      3980      0.934      0.906      0.964
0.835

```

```

Epoch      GPU_mem      box_loss      cls_loss      dfl_loss  Instances      Size
23/50      16.5G      0.6098      0.4319      0.8451      68      1280:
100%|      | 308/308 [01:49<00:00, 2.81it/s]
      Class      Images  Instances      Box(P      R      mAP50
mAP50-95): 100%|      | 39/39 [00:11<00:00, 3.49it/s]
      all      2462      3980      0.931      0.909      0.964
0.835

```

```

Epoch      GPU_mem      box_loss      cls_loss      dfl_loss  Instances      Size
24/50      16.6G      0.6004      0.4226      0.8425      52      1280:
100%|      | 308/308 [01:48<00:00, 2.83it/s]
      Class      Images  Instances      Box(P      R      mAP50
mAP50-95): 100%|      | 39/39 [00:11<00:00, 3.29it/s]
      all      2462      3980      0.932      0.912      0.965
0.84

```

```

Epoch      GPU_mem      box_loss      cls_loss      dfl_loss  Instances      Size
25/50      16.6G      0.6011      0.4232      0.8424      47      1280:
100%|      | 308/308 [01:47<00:00, 2.87it/s]
      Class      Images  Instances      Box(P      R      mAP50
mAP50-95): 100%|      | 39/39 [00:11<00:00, 3.37it/s]
      all      2462      3980      0.935      0.906      0.964
0.841

```

```

Epoch      GPU_mem      box_loss      cls_loss      dfl_loss  Instances      Size

```

```

26/50      16.5G      0.5955      0.4149      0.8414      55      1280:
100%|      | 308/308 [01:48<00:00, 2.83it/s]
          Class      Images  Instances      Box(P          R      mAP50
mAP50-95): 100%|      | 39/39 [00:11<00:00, 3.46it/s]
          all      2462      3980      0.931      0.916      0.967
0.849

```

```

Epoch      GPU_mem      box_loss      cls_loss      dfl_loss  Instances      Size
27/50      16.6G      0.5877      0.407      0.8414      43      1280:
100%|      | 308/308 [01:49<00:00, 2.81it/s]
          Class      Images  Instances      Box(P          R      mAP50
mAP50-95): 100%|      | 39/39 [00:11<00:00, 3.51it/s]
          all      2462      3980      0.939      0.92      0.968
0.846

```

```

Epoch      GPU_mem      box_loss      cls_loss      dfl_loss  Instances      Size
28/50      16.4G      0.5786      0.3981      0.8376      99      1280:
100%|      | 308/308 [01:47<00:00, 2.86it/s]
          Class      Images  Instances      Box(P          R      mAP50
mAP50-95): 100%|      | 39/39 [00:10<00:00, 3.55it/s]
          all      2462      3980      0.94      0.917      0.968
0.85

```

```

Epoch      GPU_mem      box_loss      cls_loss      dfl_loss  Instances      Size
29/50      16.6G      0.5883      0.4008      0.8374      57      1280:
100%|      | 308/308 [01:49<00:00, 2.82it/s]
          Class      Images  Instances      Box(P          R      mAP50
mAP50-95): 100%|      | 39/39 [00:11<00:00, 3.35it/s]
          all      2462      3980      0.934      0.922      0.97
0.854

```

```

Epoch      GPU_mem      box_loss      cls_loss      dfl_loss  Instances      Size
30/50      16.5G      0.5789      0.393      0.8383      57      1280:
100%|      | 308/308 [01:48<00:00, 2.83it/s]
          Class      Images  Instances      Box(P          R      mAP50
mAP50-95): 100%|      | 39/39 [00:11<00:00, 3.52it/s]
          all      2462      3980      0.944      0.92      0.969
0.856

```

```

Epoch      GPU_mem      box_loss      cls_loss      dfl_loss  Instances      Size

```

```

31/50      16.4G      0.5733      0.3918      0.8358      43      1280:
100%|      | 308/308 [01:48<00:00, 2.83it/s]
      Class      Images  Instances      Box(P      R      mAP50
mAP50-95): 100%|      | 39/39 [00:11<00:00, 3.46it/s]
      all      2462      3980      0.939      0.923      0.971
0.855

```

```

Epoch      GPU_mem      box_loss      cls_loss      dfl_loss  Instances      Size
32/50      16.6G      0.5642      0.3807      0.8334      77      1280:
100%|      | 308/308 [01:48<00:00, 2.84it/s]
      Class      Images  Instances      Box(P      R      mAP50
mAP50-95): 100%|      | 39/39 [00:11<00:00, 3.47it/s]
      all      2462      3980      0.937      0.925      0.971
0.856

```

```

Epoch      GPU_mem      box_loss      cls_loss      dfl_loss  Instances      Size
33/50      16.4G      0.5604      0.3777      0.836      49      1280:
100%|      | 308/308 [01:48<00:00, 2.85it/s]
      Class      Images  Instances      Box(P      R      mAP50
mAP50-95): 100%|      | 39/39 [00:11<00:00, 3.52it/s]
      all      2462      3980      0.946      0.923      0.971
0.859

```

```

Epoch      GPU_mem      box_loss      cls_loss      dfl_loss  Instances      Size
34/50      16.6G      0.5556      0.3719      0.8327      73      1280:
100%|      | 308/308 [01:48<00:00, 2.83it/s]
      Class      Images  Instances      Box(P      R      mAP50
mAP50-95): 100%|      | 39/39 [00:11<00:00, 3.52it/s]
      all      2462      3980      0.946      0.933      0.974
0.861

```

```

Epoch      GPU_mem      box_loss      cls_loss      dfl_loss  Instances      Size
35/50      16.7G      0.5534      0.3673      0.8334      60      1280:
100%|      | 308/308 [01:49<00:00, 2.80it/s]
      Class      Images  Instances      Box(P      R      mAP50
mAP50-95): 100%|      | 39/39 [00:11<00:00, 3.54it/s]

```


	all	2462	3980	0.938	0.941	0.973
--	-----	------	------	-------	-------	-------

0.863

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
36/50	16.5G	0.5471	0.3606	0.8299	48	1280:
100%	308/308	[01:49<00:00,	2.81it/s]			
	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%	39/39	[00:11<00:00,	3.53it/s]			
	all	2462	3980	0.945	0.926	0.973

0.863

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
37/50	16.5G	0.545	0.3575	0.8303	42	1280:
100%	308/308	[01:48<00:00,	2.83it/s]			
	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%	39/39	[00:10<00:00,	3.61it/s]			
	all	2462	3980	0.944	0.927	0.974

0.864

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
38/50	16.6G	0.5435	0.3563	0.8278	87	1280:
100%	308/308	[01:49<00:00,	2.82it/s]			
	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%	39/39	[00:11<00:00,	3.49it/s]			
	all	2462	3980	0.947	0.93	0.974

0.866

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
39/50	16.5G	0.5358	0.3491	0.829	67	1280:
100%	308/308	[01:47<00:00,	2.86it/s]			
	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%	39/39	[00:11<00:00,	3.36it/s]			
	all	2462	3980	0.939	0.939	0.974

0.867

Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
40/50	16.5G	0.5301	0.3444	0.8281	66	1280:
100%	308/308	[01:47<00:00,	2.86it/s]			

	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%		39/39	[00:11<00:00,	3.37it/s]		
	all	2462	3980	0.947	0.927	0.973

0.868

Closing dataloader mosaic

alumentations: Blur(p=0.01, blur_limit=(3, 7)), MedianBlur(p=0.01, blur_limit=(3, 7)), ToGray(p=0.01, num_output_channels=3, method='weighted_average'), CLAHE(p=0.01, clip_limit=(1.0, 4.0), tile_grid_size=(8, 8))

	Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
	41/50	16.5G	0.5033	0.317	0.8088	23	1280:
100%		308/308	[01:47<00:00,	2.86it/s]			
		Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%			39/39	[00:10<00:00,	3.69it/s]		
		all	2462	3980	0.945	0.928	0.973

0.86

	Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
	42/50	16.4G	0.4943	0.3035	0.8084	28	1280:
100%		308/308	[01:43<00:00,	2.99it/s]			
		Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%			39/39	[00:10<00:00,	3.67it/s]		
		all	2462	3980	0.949	0.93	0.973

0.865

	Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
	43/50	16.4G	0.4887	0.301	0.8064	26	1280:
100%		308/308	[01:44<00:00,	2.96it/s]			
		Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%			39/39	[00:10<00:00,	3.64it/s]		
		all	2462	3980	0.958	0.927	0.974

0.867

	Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
	44/50	16.4G	0.4837	0.2948	0.8067	33	1280:
100%		308/308	[01:42<00:00,	2.99it/s]			
		Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%			39/39	[00:10<00:00,	3.63it/s]		

0.871

	all	2462	3980	0.958	0.928	0.976
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	Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
	45/50	16.3G	0.4802	0.2909	0.8043	36	1280:
100%	308/308	[01:44<00:00,	2.94it/s]				
	Class	Images	Instances	Box(P	R	mAP50	
mAP50-95): 100%	39/39	[00:10<00:00,	3.72it/s]				
	all	2462	3980	0.954	0.934	0.975	

0.87

	Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
	46/50	16.4G	0.4765	0.2855	0.8045	50	1280:
100%	308/308	[01:44<00:00,	2.96it/s]				
	Class	Images	Instances	Box(P	R	mAP50	
mAP50-95): 100%	39/39	[00:10<00:00,	3.61it/s]				
	all	2462	3980	0.956	0.929	0.976	

0.872

	Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
	47/50	16.4G	0.4705	0.2816	0.8033	37	1280:
100%	308/308	[01:43<00:00,	2.99it/s]				
	Class	Images	Instances	Box(P	R	mAP50	
mAP50-95): 100%	39/39	[00:11<00:00,	3.43it/s]				
	all	2462	3980	0.952	0.935	0.975	

0.873

	Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
	48/50	16.4G	0.4633	0.2764	0.8012	23	1280:
100%	308/308	[01:43<00:00,	2.98it/s]				
	Class	Images	Instances	Box(P	R	mAP50	
mAP50-95): 100%	39/39	[00:10<00:00,	3.66it/s]				
	all	2462	3980	0.956	0.93	0.976	

0.872

	Epoch	GPU_mem	box_loss	cls_loss	df1_loss	Instances	Size
	49/50	16.6G	0.4609	0.2734	0.8003	31	1280:
100%	308/308	[01:45<00:00,	2.93it/s]				

	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%		39/39	[00:10<00:00,	3.81it/s]		
	all	2462	3980	0.951	0.937	0.975

0.873

Epoch	GPU_mem	box_loss	cls_loss	dfl_loss	Instances	Size
50/50	16.3G	0.4589	0.2698	0.8	32	1280:

100%| 308/308 [01:45<00:00, 2.93it/s]

	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%		39/39	[00:10<00:00,	3.71it/s]		
	all	2462	3980	0.951	0.936	0.975

0.874

50 epochs completed in 1.667 hours.

Optimizer stripped from runs/detect/train/weights/last.pt, 6.3MB

Optimizer stripped from runs/detect/train/weights/best.pt, 6.3MB

Validating runs/detect/train/weights/best.pt...

Ultralytics 8.3.39 Python-3.10.12 torch-2.5.1+cu121 CUDA:0 (NVIDIA A100-SXM4-40GB, 40514MiB)

Model summary (fused): 168 layers, 3,005,843 parameters, 0 gradients, 8.1 GFLOPs

	Class	Images	Instances	Box(P	R	mAP50
mAP50-95): 100%		39/39	[00:12<00:00,	3.14it/s]		
	all	2462	3980	0.951	0.936	0.976

0.874

Speed: 0.2ms preprocess, 0.8ms inference, 0.0ms loss, 0.9ms postprocess per image

Results saved to runs/detect/train

[16]: ultralytics.utils.metrics.DetMetrics object with attributes:

```

ap_class_index: array([0])
box: ultralytics.utils.metrics.Metric object
confusion_matrix: <ultralytics.utils.metrics.ConfusionMatrix object at 0x7c72a430b430>
curves: ['Precision-Recall(B)', 'F1-Confidence(B)', 'Precision-Confidence(B)', 'Recall-Confidence(B)']
curves_results: [[array([
0, 0.001001, 0.002002, 0.003003,
0.004004, 0.005005, 0.006006, 0.007007, 0.008008, 0.009009,
0.01001, 0.011011, 0.012012, 0.013013, 0.014014, 0.015015,
0.016016, 0.017017, 0.018018, 0.019019, 0.02002, 0.021021,
```

0.022022,	0.023023,				
	0.024024,	0.025025,	0.026026,	0.027027,	0.028028,
0.029029,	0.03003,	0.031031,	0.032032,	0.033033,	0.034034,
0.035035,	0.036036,	0.037037,	0.038038,	0.039039,	0.04004,
0.041041,	0.042042,	0.043043,	0.044044,	0.045045,	0.046046,
0.047047,					
	0.048048,	0.049049,	0.05005,	0.051051,	0.052052,
0.053053,	0.054054,	0.055055,	0.056056,	0.057057,	0.058058,
0.059059,	0.06006,	0.061061,	0.062062,	0.063063,	0.064064,
0.065065,	0.066066,	0.067067,	0.068068,	0.069069,	0.07007,
0.071071,					
	0.072072,	0.073073,	0.074074,	0.075075,	0.076076,
0.077077,	0.078078,	0.079079,	0.08008,	0.081081,	0.082082,
0.083083,	0.084084,	0.085085,	0.086086,	0.087087,	0.088088,
0.089089,	0.09009,	0.091091,	0.092092,	0.093093,	0.094094,
0.095095,					
	0.096096,	0.097097,	0.098098,	0.099099,	0.1001,
0.1011,	0.1021,	0.1031,	0.1041,	0.10511,	0.10611,
0.10711,	0.10811,	0.10911,	0.11011,	0.11111,	0.11211,
0.11311,	0.11411,	0.11512,	0.11612,	0.11712,	0.11812,
0.11912,					
	0.12012,	0.12112,	0.12212,	0.12312,	0.12412,
0.12513,	0.12613,	0.12713,	0.12813,	0.12913,	0.13013,
0.13113,	0.13213,	0.13313,	0.13413,	0.13514,	0.13614,
0.13714,	0.13814,	0.13914,	0.14014,	0.14114,	0.14214,
0.14314,					
	0.14414,	0.14515,	0.14615,	0.14715,	0.14815,
0.14915,	0.15015,	0.15115,	0.15215,	0.15315,	0.15415,
0.15516,	0.15616,	0.15716,	0.15816,	0.15916,	0.16016,
0.16116,	0.16216,	0.16316,	0.16416,	0.16517,	0.16617,
0.16717,					
	0.16817,	0.16917,	0.17017,	0.17117,	0.17217,
0.17317,	0.17417,	0.17518,	0.17618,	0.17718,	0.17818,
0.17918,	0.18018,	0.18118,	0.18218,	0.18318,	0.18418,
0.18519,	0.18619,	0.18719,	0.18819,	0.18919,	0.19019,
0.19119,					
	0.19219,	0.19319,	0.19419,	0.1952,	0.1962,
0.1972,	0.1982,	0.1992,	0.2002,	0.2012,	0.2022,
0.2032,	0.2042,	0.20521,	0.20621,	0.20721,	0.20821,
0.20921,	0.21021,	0.21121,	0.21221,	0.21321,	0.21421,
0.21522,					
	0.21622,	0.21722,	0.21822,	0.21922,	0.22022,
0.22122,	0.22222,	0.22322,	0.22422,	0.22523,	0.22623,
0.22723,	0.22823,	0.22923,	0.23023,	0.23123,	0.23223,
0.23323,	0.23423,	0.23524,	0.23624,	0.23724,	0.23824,
0.23924,					
	0.24024,	0.24124,	0.24224,	0.24324,	0.24424,

0.24525,	0.24625,	0.24725,	0.24825,	0.24925,	0.25025,
0.25125,	0.25225,	0.25325,	0.25425,	0.25526,	0.25626,
0.25726,	0.25826,	0.25926,	0.26026,	0.26126,	0.26226,
0.26326,					
	0.26426,	0.26527,	0.26627,	0.26727,	0.26827,
0.26927,	0.27027,	0.27127,	0.27227,	0.27327,	0.27427,
0.27528,	0.27628,	0.27728,	0.27828,	0.27928,	0.28028,
0.28128,	0.28228,	0.28328,	0.28428,	0.28529,	0.28629,
0.28729,					
	0.28829,	0.28929,	0.29029,	0.29129,	0.29229,
0.29329,	0.29429,	0.2953,	0.2963,	0.2973,	0.2983,
0.2993,	0.3003,	0.3013,	0.3023,	0.3033,	0.3043,
0.30531,	0.30631,	0.30731,	0.30831,	0.30931,	0.31031,
0.31131,					
	0.31231,	0.31331,	0.31431,	0.31532,	0.31632,
0.31732,	0.31832,	0.31932,	0.32032,	0.32132,	0.32232,
0.32332,	0.32432,	0.32533,	0.32633,	0.32733,	0.32833,
0.32933,	0.33033,	0.33133,	0.33233,	0.33333,	0.33433,
0.33534,					
	0.33634,	0.33734,	0.33834,	0.33934,	0.34034,
0.34134,	0.34234,	0.34334,	0.34434,	0.34535,	0.34635,
0.34735,	0.34835,	0.34935,	0.35035,	0.35135,	0.35235,
0.35335,	0.35435,	0.35536,	0.35636,	0.35736,	0.35836,
0.35936,					
	0.36036,	0.36136,	0.36236,	0.36336,	0.36436,
0.36537,	0.36637,	0.36737,	0.36837,	0.36937,	0.37037,
0.37137,	0.37237,	0.37337,	0.37437,	0.37538,	0.37638,
0.37738,	0.37838,	0.37938,	0.38038,	0.38138,	0.38238,
0.38338,					
	0.38438,	0.38539,	0.38639,	0.38739,	0.38839,
0.38939,	0.39039,	0.39139,	0.39239,	0.39339,	0.39439,
0.3954,	0.3964,	0.3974,	0.3984,	0.3994,	0.4004,
0.4014,	0.4024,	0.4034,	0.4044,	0.40541,	0.40641,
0.40741,					
	0.40841,	0.40941,	0.41041,	0.41141,	0.41241,
0.41341,	0.41441,	0.41542,	0.41642,	0.41742,	0.41842,
0.41942,	0.42042,	0.42142,	0.42242,	0.42342,	0.42442,
0.42543,	0.42643,	0.42743,	0.42843,	0.42943,	0.43043,
0.43143,					
	0.43243,	0.43343,	0.43443,	0.43544,	0.43644,
0.43744,	0.43844,	0.43944,	0.44044,	0.44144,	0.44244,
0.44344,	0.44444,	0.44545,	0.44645,	0.44745,	0.44845,
0.44945,	0.45045,	0.45145,	0.45245,	0.45345,	0.45445,
0.45546,					
	0.45646,	0.45746,	0.45846,	0.45946,	0.46046,
0.46146,	0.46246,	0.46346,	0.46446,	0.46547,	0.46647,
0.46747,	0.46847,	0.46947,	0.47047,	0.47147,	0.47247,

0.47347,	0.47447,	0.47548,	0.47648,	0.47748,	0.47848,
0.47948,					
	0.48048,	0.48148,	0.48248,	0.48348,	0.48448,
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0.56356,	0.56456,	0.56557,	0.56657,	0.56757,	0.56857,
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0.57558,					
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0.5996,					
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0.91191,					
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0.21522,					

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0.23924,					
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	0.31231,	0.31331,	0.31431,	0.31532,	0.31632,
0.31732,	0.31832,	0.31932,	0.32032,	0.32132,	0.32232,
0.32332,	0.32432,	0.32533,	0.32633,	0.32733,	0.32833,
0.32933,	0.33033,	0.33133,	0.33233,	0.33333,	0.33433,
0.33534,					
	0.33634,	0.33734,	0.33834,	0.33934,	0.34034,
0.34134,	0.34234,	0.34334,	0.34434,	0.34535,	0.34635,
0.34735,	0.34835,	0.34935,	0.35035,	0.35135,	0.35235,
0.35335,	0.35435,	0.35536,	0.35636,	0.35736,	0.35836,
0.35936,					
	0.36036,	0.36136,	0.36236,	0.36336,	0.36436,
0.36537,	0.36637,	0.36737,	0.36837,	0.36937,	0.37037,
0.37137,	0.37237,	0.37337,	0.37437,	0.37538,	0.37638,
0.37738,	0.37838,	0.37938,	0.38038,	0.38138,	0.38238,
0.38338,					
	0.38438,	0.38539,	0.38639,	0.38739,	0.38839,
0.38939,	0.39039,	0.39139,	0.39239,	0.39339,	0.39439,
0.3954,	0.3964,	0.3974,	0.3984,	0.3994,	0.4004,
0.4014,	0.4024,	0.4034,	0.4044,	0.40541,	0.40641,
0.40741,					
	0.40841,	0.40941,	0.41041,	0.41141,	0.41241,
0.41341,	0.41441,	0.41542,	0.41642,	0.41742,	0.41842,
0.41942,	0.42042,	0.42142,	0.42242,	0.42342,	0.42442,
0.42543,	0.42643,	0.42743,	0.42843,	0.42943,	0.43043,
0.43143,					
	0.43243,	0.43343,	0.43443,	0.43544,	0.43644,
0.43744,	0.43844,	0.43944,	0.44044,	0.44144,	0.44244,

0.44344,	0.44444,	0.44545,	0.44645,	0.44745,	0.44845,
0.44945,	0.45045,	0.45145,	0.45245,	0.45345,	0.45445,
0.45546,	0.45646,	0.45746,	0.45846,	0.45946,	0.46046,
0.46146,	0.46246,	0.46346,	0.46446,	0.46547,	0.46647,
0.46747,	0.46847,	0.46947,	0.47047,	0.47147,	0.47247,
0.47347,	0.47447,	0.47548,	0.47648,	0.47748,	0.47848,
0.47948,	0.48048,	0.48148,	0.48248,	0.48348,	0.48448,
0.48549,	0.48649,	0.48749,	0.48849,	0.48949,	0.49049,
0.49149,	0.49249,	0.49349,	0.49449,	0.4955,	0.4965,
0.4975,	0.4985,	0.4995,	0.5005,	0.5015,	0.5025,
0.5035,	0.5045,	0.50551,	0.50651,	0.50751,	0.50851,
0.50951,	0.51051,	0.51151,	0.51251,	0.51351,	0.51451,
0.51552,	0.51652,	0.51752,	0.51852,	0.51952,	0.52052,
0.52152,	0.52252,	0.52352,	0.52452,	0.52553,	0.52653,
0.52753,	0.52853,	0.52953,	0.53053,	0.53153,	0.53253,
0.53353,	0.53453,	0.53554,	0.53654,	0.53754,	0.53854,
0.53954,	0.54054,	0.54154,	0.54254,	0.54354,	0.54454,
0.54555,	0.54655,	0.54755,	0.54855,	0.54955,	0.55055,
0.55155,	0.55255,	0.55355,	0.55455,	0.55556,	0.55656,
0.55756,	0.55856,	0.55956,	0.56056,	0.56156,	0.56256,
0.56356,	0.56456,	0.56557,	0.56657,	0.56757,	0.56857,
0.56957,	0.57057,	0.57157,	0.57257,	0.57357,	0.57457,
0.57558,	0.57658,	0.57758,	0.57858,	0.57958,	0.58058,
0.58158,	0.58258,	0.58358,	0.58458,	0.58559,	0.58659,
0.58759,	0.58859,	0.58959,	0.59059,	0.59159,	0.59259,
0.59359,	0.59459,	0.5956,	0.5966,	0.5976,	0.5986,
0.5996,	0.6006,	0.6016,	0.6026,	0.6036,	0.6046,
0.60561,	0.60661,	0.60761,	0.60861,	0.60961,	0.61061,
0.61161,	0.61261,	0.61361,	0.61461,	0.61562,	0.61662,
0.61762,	0.61862,	0.61962,	0.62062,	0.62162,	0.62262,
0.62362,	0.62462,	0.62563,	0.62663,	0.62763,	0.62863,
0.62963,	0.63063,	0.63163,	0.63263,	0.63363,	0.63463,
0.63564,	0.63664,	0.63764,	0.63864,	0.63964,	0.64064,
0.64164,	0.64264,	0.64364,	0.64464,	0.64565,	0.64665,
0.64765,	0.64865,	0.64965,	0.65065,	0.65165,	0.65265,
0.65365,	0.65465,	0.65566,	0.65666,	0.65766,	0.65866,
0.65966,	0.66066,	0.66166,	0.66266,	0.66366,	0.66466,
0.66567,	0.66667,	0.66767,	0.66867,	0.66967,	0.67067,

0.67167,					
	0.67267,	0.67367,	0.67467,	0.67568,	0.67668,
0.67768,	0.67868,	0.67968,	0.68068,	0.68168,	0.68268,
0.68368,	0.68468,	0.68569,	0.68669,	0.68769,	0.68869,
0.68969,	0.69069,	0.69169,	0.69269,	0.69369,	0.69469,
0.6957,					
	0.6967,	0.6977,	0.6987,	0.6997,	0.7007,
0.7017,	0.7027,	0.7037,	0.7047,	0.70571,	0.70671,
0.70771,	0.70871,	0.70971,	0.71071,	0.71171,	0.71271,
0.71371,	0.71471,	0.71572,	0.71672,	0.71772,	0.71872,
0.71972,					
	0.72072,	0.72172,	0.72272,	0.72372,	0.72472,
0.72573,	0.72673,	0.72773,	0.72873,	0.72973,	0.73073,
0.73173,	0.73273,	0.73373,	0.73473,	0.73574,	0.73674,
0.73774,	0.73874,	0.73974,	0.74074,	0.74174,	0.74274,
0.74374,					
	0.74474,	0.74575,	0.74675,	0.74775,	0.74875,
0.74975,	0.75075,	0.75175,	0.75275,	0.75375,	0.75475,
0.75576,	0.75676,	0.75776,	0.75876,	0.75976,	0.76076,
0.76176,	0.76276,	0.76376,	0.76476,	0.76577,	0.76677,
0.76777,					
	0.76877,	0.76977,	0.77077,	0.77177,	0.77277,
0.77377,	0.77477,	0.77578,	0.77678,	0.77778,	0.77878,
0.77978,	0.78078,	0.78178,	0.78278,	0.78378,	0.78478,
0.78579,	0.78679,	0.78779,	0.78879,	0.78979,	0.79079,
0.79179,					
	0.79279,	0.79379,	0.79479,	0.7958,	0.7968,
0.7978,	0.7988,	0.7998,	0.8008,	0.8018,	0.8028,
0.8038,	0.8048,	0.80581,	0.80681,	0.80781,	0.80881,
0.80981,	0.81081,	0.81181,	0.81281,	0.81381,	0.81481,
0.81582,					
	0.81682,	0.81782,	0.81882,	0.81982,	0.82082,
0.82182,	0.82282,	0.82382,	0.82482,	0.82583,	0.82683,
0.82783,	0.82883,	0.82983,	0.83083,	0.83183,	0.83283,
0.83383,	0.83483,	0.83584,	0.83684,	0.83784,	0.83884,
0.83984,					
	0.84084,	0.84184,	0.84284,	0.84384,	0.84484,
0.84585,	0.84685,	0.84785,	0.84885,	0.84985,	0.85085,
0.85185,	0.85285,	0.85385,	0.85485,	0.85586,	0.85686,
0.85786,	0.85886,	0.85986,	0.86086,	0.86186,	0.86286,
0.86386,					
	0.86486,	0.86587,	0.86687,	0.86787,	0.86887,
0.86987,	0.87087,	0.87187,	0.87287,	0.87387,	0.87487,
0.87588,	0.87688,	0.87788,	0.87888,	0.87988,	0.88088,
0.88188,	0.88288,	0.88388,	0.88488,	0.88589,	0.88689,
0.88789,					
	0.88889,	0.88989,	0.89089,	0.89189,	0.89289,

0.89389,	0.89489,	0.8959,	0.8969,	0.8979,	0.8989,
0.8999,	0.9009,	0.9019,	0.9029,	0.9039,	0.9049,
0.90591,	0.90691,	0.90791,	0.90891,	0.90991,	0.91091,
0.91191,					
	0.91291,	0.91391,	0.91491,	0.91592,	0.91692,
0.91792,	0.91892,	0.91992,	0.92092,	0.92192,	0.92292,
0.92392,	0.92492,	0.92593,	0.92693,	0.92793,	0.92893,
0.92993,	0.93093,	0.93193,	0.93293,	0.93393,	0.93493,
0.93594,					
	0.93694,	0.93794,	0.93894,	0.93994,	0.94094,
0.94194,	0.94294,	0.94394,	0.94494,	0.94595,	0.94695,
0.94795,	0.94895,	0.94995,	0.95095,	0.95195,	0.95295,
0.95395,	0.95495,	0.95596,	0.95696,	0.95796,	0.95896,
0.95996,					
	0.96096,	0.96196,	0.96296,	0.96396,	0.96496,
0.96597,	0.96697,	0.96797,	0.96897,	0.96997,	0.97097,
0.97197,	0.97297,	0.97397,	0.97497,	0.97598,	0.97698,
0.97798,	0.97898,	0.97998,	0.98098,	0.98198,	0.98298,
0.98398,					
	0.98498,	0.98599,	0.98699,	0.98799,	0.98899,
0.98999,	0.99099,	0.99199,	0.99299,	0.99399,	0.99499,
0.996,	0.997,	0.998,	0.999,	1]], array([[
0.60207,	0.60207,	0.68129,	0.71991,	0.74569,	0.76327,
0.77755,	0.78741,	0.79814,	0.80607,	0.81362,	0.81964,
0.82425,	0.82825,	0.83182,	0.8361,	0.83926,	0.84303,
0.84723,	0.8503,	0.85209,	0.85414,	0.85615,	
	0.85789,	0.85959,	0.86159,	0.86286,	0.86494,
0.8668,	0.86873,	0.87028,	0.87128,	0.87212,	0.87315,
0.87462,	0.87568,	0.87758,	0.87917,	0.88058,	0.88166,
0.88281,	0.88382,	0.88489,	0.88595,	0.887,	0.88769,
	0.88827,	0.88966,	0.89032,	0.89147,	0.89193,
0.89266,	0.89405,	0.89466,	0.89516,	0.89626,	0.89708,
0.89723,	0.89855,	0.89956,	0.90014,	0.90075,	0.90139,
0.90236,	0.90301,	0.9037,	0.90402,	0.90467,	0.9054,
	0.90594,	0.90672,	0.90785,	0.9082,	0.90815,
0.90832,	0.90892,	0.90943,	0.90987,	0.91011,	0.91039,
0.91069,	0.91109,	0.91156,	0.91193,	0.91228,	0.91245,
0.91246,	0.91313,	0.91358,	0.91404,	0.91463,	0.91514,
	0.9158,	0.91601,	0.91647,	0.91655,	0.91666,
0.91699,	0.91763,	0.91784,	0.91827,	0.91857,	0.91889,
0.91908,	0.91949,	0.91977,	0.92008,	0.92026,	0.9205,
0.92104,	0.92144,	0.92154,	0.92165,	0.9216,	0.92199,
	0.92214,	0.92257,	0.92266,	0.92276,	0.92285,
0.92311,	0.92311,	0.92339,	0.92395,	0.92413,	0.92445,
0.92457,	0.92463,	0.9251,	0.92491,	0.92505,	0.92523,
0.92541,	0.92569,	0.92587,	0.92615,	0.9266,	0.92705,
	0.92741,	0.92759,	0.92785,	0.92817,	0.92833,

0.92826,	0.92833,	0.92855,	0.92866,	0.92923,	0.92945,
0.92949,	0.92953,	0.92952,	0.92954,	0.92952,	0.92965,
0.92987,	0.92991,	0.92994,	0.92998,	0.93002,	0.93007,
	0.92984,	0.92996,	0.93007,	0.93007,	0.93003,
0.93033,	0.93044,	0.93054,	0.93033,	0.93057,	0.93081,
0.931,	0.93104,	0.93108,	0.93126,	0.93127,	0.93148,
0.93159,	0.9316,	0.93192,	0.93205,	0.93211,	0.93251,
	0.93269,	0.93275,	0.93272,	0.93313,	0.93322,
0.93331,	0.93351,	0.93368,	0.93362,	0.93362,	0.93356,
0.93357,	0.93388,	0.93407,	0.93444,	0.93439,	0.93433,
0.93449,	0.93462,	0.93473,	0.93469,	0.93492,	0.93516,
	0.93539,	0.9355,	0.9355,	0.93559,	0.93565,
0.93592,	0.93598,	0.93591,	0.93597,	0.93624,	0.93633,
0.93623,	0.9362,	0.93625,	0.93605,	0.93634,	0.93619,
0.93613,	0.93588,	0.93573,	0.93573,	0.93573,	0.93574,
	0.93602,	0.93619,	0.93659,	0.93676,	0.93682,
0.93696,	0.93702,	0.93705,	0.9371,	0.93715,	0.93742,
0.93771,	0.93796,	0.93801,	0.93817,	0.93833,	0.93835,
0.9384,	0.93865,	0.9387,	0.93899,	0.93907,	0.93919,
	0.93926,	0.93932,	0.93944,	0.93956,	0.93988,
0.93979,	0.93998,	0.93993,	0.94001,	0.94008,	0.94008,
0.93997,	0.9399,	0.93989,	0.93997,	0.94002,	0.94007,
0.94017,	0.94007,	0.94,	0.94,	0.94001,	0.94004,
	0.93993,	0.93995,	0.9401,	0.94034,	0.94039,
0.94043,	0.94037,	0.9402,	0.94027,	0.94033,	0.94038,
0.94046,	0.9406,	0.94052,	0.94063,	0.94091,	0.94089,
0.94096,	0.94112,	0.94116,	0.94119,	0.94143,	0.94131,
	0.94106,	0.94113,	0.94125,	0.94149,	0.94174,
0.94167,	0.94159,	0.94151,	0.94154,	0.94163,	0.94176,
0.94186,	0.94191,	0.94196,	0.94208,	0.94215,	0.94222,
0.94229,	0.94242,	0.9423,	0.94209,	0.94203,	0.9421,
	0.94222,	0.94226,	0.94222,	0.94217,	0.94212,
0.94203,	0.94214,	0.94206,	0.94218,	0.94232,	0.94239,
0.94235,	0.94248,	0.94239,	0.94248,	0.9421,	0.94213,
0.94216,	0.94219,	0.94228,	0.94227,	0.9422,	0.94226,
	0.94234,	0.94272,	0.94287,	0.9428,	0.94286,
0.94294,	0.94301,	0.94297,	0.94294,	0.9429,	0.94286,
0.94281,	0.94276,	0.94286,	0.94273,	0.94264,	0.94269,
0.94263,	0.94276,	0.94274,	0.94276,	0.9427,	0.94262,
	0.94254,	0.94239,	0.9426,	0.94253,	0.94257,
0.94254,	0.94254,	0.94241,	0.94234,	0.94243,	0.94255,
0.94243,	0.94266,	0.94276,	0.94269,	0.94269,	0.94281,
0.94307,	0.9432,	0.94328,	0.94335,	0.94325,	0.94345,
	0.94319,	0.94331,	0.94344,	0.94354,	0.94346,
0.94326,	0.94321,	0.94317,	0.94308,	0.94297,	0.94289,
0.94297,	0.94316,	0.94323,	0.94312,	0.94303,	0.94311,
0.94319,	0.94312,	0.94308,	0.94312,	0.94316,	0.94315,

	0.94311,	0.94325,	0.94321,	0.94312,	0.94305,
0.94284,	0.94278,	0.94265,	0.94272,	0.94262,	0.94274,
0.94285,	0.94281,	0.94278,	0.94274,	0.94261,	0.94267,
0.9426,	0.94272,	0.94276,	0.94256,	0.94263,	0.94276,
	0.94273,	0.9427,	0.94268,	0.94265,	0.94286,
0.94283,	0.94276,	0.94242,	0.94235,	0.94213,	0.94219,
0.94218,	0.9423,	0.94254,	0.94241,	0.94247,	0.94252,
0.94244,	0.94223,	0.94216,	0.94229,	0.94234,	0.94229,
	0.94225,	0.94215,	0.94216,	0.94213,	0.94211,
0.94214,	0.94217,	0.94214,	0.94212,	0.9421,	0.94208,
0.94205,	0.9421,	0.94216,	0.94199,	0.94195,	0.9419,
0.94201,	0.94228,	0.9423,	0.94232,	0.94234,	0.94236,
	0.94239,	0.94248,	0.94236,	0.94242,	0.94248,
0.94254,	0.94259,	0.94261,	0.94262,	0.94264,	0.94266,
0.94267,	0.94269,	0.9427,	0.9427,	0.94267,	0.94264,
0.94262,	0.94259,	0.94261,	0.94267,	0.94265,	0.94259,
	0.94247,	0.94245,	0.94249,	0.94254,	0.94251,
0.94247,	0.94242,	0.94247,	0.94241,	0.9424,	0.94212,
0.94198,	0.94194,	0.94191,	0.94187,	0.94184,	0.94179,
0.94175,	0.94157,	0.94161,	0.94166,	0.94178,	0.94168,
	0.9417,	0.94172,	0.94174,	0.94176,	0.94178,
0.94178,	0.94173,	0.94169,	0.94137,	0.94132,	0.94128,
0.9411,	0.94106,	0.94103,	0.94099,	0.9409,	0.94092,
0.94085,	0.94087,	0.94093,	0.94085,	0.94091,	0.94083,
	0.9409,	0.94089,	0.94086,	0.94082,	0.94079,
0.94071,	0.94081,	0.94081,	0.94077,	0.94083,	0.94094,
0.94087,	0.94092,	0.94073,	0.94079,	0.9409,	0.94091,
0.94087,	0.94084,	0.94081,	0.94074,	0.94067,	0.94049,
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0.86386,					

	0.86486,	0.86587,	0.86687,	0.86787,	0.86887,
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0.88789,					
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0.91191,					
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0.91792,	0.91892,	0.91992,	0.92092,	0.92192,	0.92292,
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0.92993,	0.93093,	0.93193,	0.93293,	0.93393,	0.93493,
0.93594,					
	0.93694,	0.93794,	0.93894,	0.93994,	0.94094,
0.94194,	0.94294,	0.94394,	0.94494,	0.94595,	0.94695,
0.94795,	0.94895,	0.94995,	0.95095,	0.95195,	0.95295,
0.95395,	0.95495,	0.95596,	0.95696,	0.95796,	0.95896,
0.95996,					
	0.96096,	0.96196,	0.96296,	0.96396,	0.96496,
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0.98398,					
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	0.88266,	0.88345,	0.88361,	0.8842,	0.88437,
0.88485,	0.88506,	0.88557,	0.88683,	0.88715,	0.88774,
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0.91184,	0.9125,	0.91286,	0.91359,	0.91358,	0.91357,
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	0.91585,	0.91617,	0.91629,	0.91647,	0.91658,
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0.91954,	0.9195,	0.91952,	0.91969,	0.91989,	0.92001,
	0.92056,	0.92088,	0.92165,	0.922,	0.92211,
0.92239,	0.92257,	0.92278,	0.92289,	0.92299,	0.9235,
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	0.92757,	0.92767,	0.92791,	0.92815,	0.92885,
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0.93275,	0.93276,	0.93278,	0.93292,	0.93304,	0.93314,
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0.1011,	0.1021,	0.1031,	0.1041,	0.10511,	0.10611,	
0.10711,	0.10811,	0.10911,	0.11011,	0.11111,	0.11211,	
0.11311,	0.11411,	0.11512,	0.11612,	0.11712,	0.11812,	
0.11912,						
	0.12012,	0.12112,	0.12212,	0.12312,	0.12412,	
0.12513,	0.12613,	0.12713,	0.12813,	0.12913,	0.13013,	
0.13113,	0.13213,	0.13313,	0.13413,	0.13514,	0.13614,	
0.13714,	0.13814,	0.13914,	0.14014,	0.14114,	0.14214,	
0.14314,						
	0.14414,	0.14515,	0.14615,	0.14715,	0.14815,	
0.14915,	0.15015,	0.15115,	0.15215,	0.15315,	0.15415,	
0.15516,	0.15616,	0.15716,	0.15816,	0.15916,	0.16016,	

0.16116,	0.16216,	0.16316,	0.16416,	0.16517,	0.16617,
0.16717,					
	0.16817,	0.16917,	0.17017,	0.17117,	0.17217,
0.17317,	0.17417,	0.17518,	0.17618,	0.17718,	0.17818,
0.17918,	0.18018,	0.18118,	0.18218,	0.18318,	0.18418,
0.18519,	0.18619,	0.18719,	0.18819,	0.18919,	0.19019,
0.19119,					
	0.19219,	0.19319,	0.19419,	0.1952,	0.1962,
0.1972,	0.1982,	0.1992,	0.2002,	0.2012,	0.2022,
0.2032,	0.2042,	0.20521,	0.20621,	0.20721,	0.20821,
0.20921,	0.21021,	0.21121,	0.21221,	0.21321,	0.21421,
0.21522,					
	0.21622,	0.21722,	0.21822,	0.21922,	0.22022,
0.22122,	0.22222,	0.22322,	0.22422,	0.22523,	0.22623,
0.22723,	0.22823,	0.22923,	0.23023,	0.23123,	0.23223,
0.23323,	0.23423,	0.23524,	0.23624,	0.23724,	0.23824,
0.23924,					
	0.24024,	0.24124,	0.24224,	0.24324,	0.24424,
0.24525,	0.24625,	0.24725,	0.24825,	0.24925,	0.25025,
0.25125,	0.25225,	0.25325,	0.25425,	0.25526,	0.25626,
0.25726,	0.25826,	0.25926,	0.26026,	0.26126,	0.26226,
0.26326,					
	0.26426,	0.26527,	0.26627,	0.26727,	0.26827,
0.26927,	0.27027,	0.27127,	0.27227,	0.27327,	0.27427,
0.27528,	0.27628,	0.27728,	0.27828,	0.27928,	0.28028,
0.28128,	0.28228,	0.28328,	0.28428,	0.28529,	0.28629,
0.28729,					
	0.28829,	0.28929,	0.29029,	0.29129,	0.29229,
0.29329,	0.29429,	0.2953,	0.2963,	0.2973,	0.2983,
0.2993,	0.3003,	0.3013,	0.3023,	0.3033,	0.3043,
0.30531,	0.30631,	0.30731,	0.30831,	0.30931,	0.31031,
0.31131,					
	0.31231,	0.31331,	0.31431,	0.31532,	0.31632,
0.31732,	0.31832,	0.31932,	0.32032,	0.32132,	0.32232,
0.32332,	0.32432,	0.32533,	0.32633,	0.32733,	0.32833,
0.32933,	0.33033,	0.33133,	0.33233,	0.33333,	0.33433,
0.33534,					
	0.33634,	0.33734,	0.33834,	0.33934,	0.34034,
0.34134,	0.34234,	0.34334,	0.34434,	0.34535,	0.34635,
0.34735,	0.34835,	0.34935,	0.35035,	0.35135,	0.35235,
0.35335,	0.35435,	0.35536,	0.35636,	0.35736,	0.35836,
0.35936,					
	0.36036,	0.36136,	0.36236,	0.36336,	0.36436,
0.36537,	0.36637,	0.36737,	0.36837,	0.36937,	0.37037,
0.37137,	0.37237,	0.37337,	0.37437,	0.37538,	0.37638,
0.37738,	0.37838,	0.37938,	0.38038,	0.38138,	0.38238,
0.38338,					

	0.38438,	0.38539,	0.38639,	0.38739,	0.38839,
0.38939,	0.39039,	0.39139,	0.39239,	0.39339,	0.39439,
0.3954,	0.3964,	0.3974,	0.3984,	0.3994,	0.4004,
0.4014,	0.4024,	0.4034,	0.4044,	0.40541,	0.40641,
0.40741,					
	0.40841,	0.40941,	0.41041,	0.41141,	0.41241,
0.41341,	0.41441,	0.41542,	0.41642,	0.41742,	0.41842,
0.41942,	0.42042,	0.42142,	0.42242,	0.42342,	0.42442,
0.42543,	0.42643,	0.42743,	0.42843,	0.42943,	0.43043,
0.43143,					
	0.43243,	0.43343,	0.43443,	0.43544,	0.43644,
0.43744,	0.43844,	0.43944,	0.44044,	0.44144,	0.44244,
0.44344,	0.44444,	0.44545,	0.44645,	0.44745,	0.44845,
0.44945,	0.45045,	0.45145,	0.45245,	0.45345,	0.45445,
0.45546,					
	0.45646,	0.45746,	0.45846,	0.45946,	0.46046,
0.46146,	0.46246,	0.46346,	0.46446,	0.46547,	0.46647,
0.46747,	0.46847,	0.46947,	0.47047,	0.47147,	0.47247,
0.47347,	0.47447,	0.47548,	0.47648,	0.47748,	0.47848,
0.47948,					
	0.48048,	0.48148,	0.48248,	0.48348,	0.48448,
0.48549,	0.48649,	0.48749,	0.48849,	0.48949,	0.49049,
0.49149,	0.49249,	0.49349,	0.49449,	0.4955,	0.4965,
0.4975,	0.4985,	0.4995,	0.5005,	0.5015,	0.5025,
0.5035,					
	0.5045,	0.50551,	0.50651,	0.50751,	0.50851,
0.50951,	0.51051,	0.51151,	0.51251,	0.51351,	0.51451,
0.51552,	0.51652,	0.51752,	0.51852,	0.51952,	0.52052,
0.52152,	0.52252,	0.52352,	0.52452,	0.52553,	0.52653,
0.52753,					
	0.52853,	0.52953,	0.53053,	0.53153,	0.53253,
0.53353,	0.53453,	0.53554,	0.53654,	0.53754,	0.53854,
0.53954,	0.54054,	0.54154,	0.54254,	0.54354,	0.54454,
0.54555,	0.54655,	0.54755,	0.54855,	0.54955,	0.55055,
0.55155,					
	0.55255,	0.55355,	0.55455,	0.55556,	0.55656,
0.55756,	0.55856,	0.55956,	0.56056,	0.56156,	0.56256,
0.56356,	0.56456,	0.56557,	0.56657,	0.56757,	0.56857,
0.56957,	0.57057,	0.57157,	0.57257,	0.57357,	0.57457,
0.57558,					
	0.57658,	0.57758,	0.57858,	0.57958,	0.58058,
0.58158,	0.58258,	0.58358,	0.58458,	0.58559,	0.58659,
0.58759,	0.58859,	0.58959,	0.59059,	0.59159,	0.59259,
0.59359,	0.59459,	0.5956,	0.5966,	0.5976,	0.5986,
0.5996,					
	0.6006,	0.6016,	0.6026,	0.6036,	0.6046,
0.60561,	0.60661,	0.60761,	0.60861,	0.60961,	0.61061,

0.61161,	0.61261,	0.61361,	0.61461,	0.61562,	0.61662,
0.61762,	0.61862,	0.61962,	0.62062,	0.62162,	0.62262,
0.62362,	0.62462,	0.62563,	0.62663,	0.62763,	0.62863,
0.62963,	0.63063,	0.63163,	0.63263,	0.63363,	0.63463,
0.63564,	0.63664,	0.63764,	0.63864,	0.63964,	0.64064,
0.64164,	0.64264,	0.64364,	0.64464,	0.64565,	0.64665,
0.64765,	0.64865,	0.64965,	0.65065,	0.65165,	0.65265,
0.65365,	0.65465,	0.65566,	0.65666,	0.65766,	0.65866,
0.65966,	0.66066,	0.66166,	0.66266,	0.66366,	0.66466,
0.66567,	0.66667,	0.66767,	0.66867,	0.66967,	0.67067,
0.67167,	0.67267,	0.67367,	0.67467,	0.67568,	0.67668,
0.67768,	0.67868,	0.67968,	0.68068,	0.68168,	0.68268,
0.68368,	0.68468,	0.68569,	0.68669,	0.68769,	0.68869,
0.68969,	0.69069,	0.69169,	0.69269,	0.69369,	0.69469,
0.6957,	0.6967,	0.6977,	0.6987,	0.6997,	0.7007,
0.7017,	0.7027,	0.7037,	0.7047,	0.70571,	0.70671,
0.70771,	0.70871,	0.70971,	0.71071,	0.71171,	0.71271,
0.71371,	0.71471,	0.71572,	0.71672,	0.71772,	0.71872,
0.71972,	0.72072,	0.72172,	0.72272,	0.72372,	0.72472,
0.72573,	0.72673,	0.72773,	0.72873,	0.72973,	0.73073,
0.73173,	0.73273,	0.73373,	0.73473,	0.73574,	0.73674,
0.73774,	0.73874,	0.73974,	0.74074,	0.74174,	0.74274,
0.74374,	0.74474,	0.74575,	0.74675,	0.74775,	0.74875,
0.74975,	0.75075,	0.75175,	0.75275,	0.75375,	0.75475,
0.75576,	0.75676,	0.75776,	0.75876,	0.75976,	0.76076,
0.76176,	0.76276,	0.76376,	0.76476,	0.76577,	0.76677,
0.76777,	0.76877,	0.76977,	0.77077,	0.77177,	0.77277,
0.77377,	0.77477,	0.77578,	0.77678,	0.77778,	0.77878,
0.77978,	0.78078,	0.78178,	0.78278,	0.78378,	0.78478,
0.78579,	0.78679,	0.78779,	0.78879,	0.78979,	0.79079,
0.79179,	0.79279,	0.79379,	0.79479,	0.7958,	0.7968,
0.7978,	0.7988,	0.7998,	0.8008,	0.8018,	0.8028,
0.8038,	0.8048,	0.80581,	0.80681,	0.80781,	0.80881,
0.80981,	0.81081,	0.81181,	0.81281,	0.81381,	0.81481,
0.81582,	0.81682,	0.81782,	0.81882,	0.81982,	0.82082,
0.82182,	0.82282,	0.82382,	0.82482,	0.82583,	0.82683,
0.82783,	0.82883,	0.82983,	0.83083,	0.83183,	0.83283,
0.83383,	0.83483,	0.83584,	0.83684,	0.83784,	0.83884,

0.83984,					
	0.84084,	0.84184,	0.84284,	0.84384,	0.84484,
0.84585,	0.84685,	0.84785,	0.84885,	0.84985,	0.85085,
0.85185,	0.85285,	0.85385,	0.85485,	0.85586,	0.85686,
0.85786,	0.85886,	0.85986,	0.86086,	0.86186,	0.86286,
0.86386,					
	0.86486,	0.86587,	0.86687,	0.86787,	0.86887,
0.86987,	0.87087,	0.87187,	0.87287,	0.87387,	0.87487,
0.87588,	0.87688,	0.87788,	0.87888,	0.87988,	0.88088,
0.88188,	0.88288,	0.88388,	0.88488,	0.88589,	0.88689,
0.88789,					
	0.88889,	0.88989,	0.89089,	0.89189,	0.89289,
0.89389,	0.89489,	0.8959,	0.8969,	0.8979,	0.8989,
0.8999,	0.9009,	0.9019,	0.9029,	0.9039,	0.9049,
0.90591,	0.90691,	0.90791,	0.90891,	0.90991,	0.91091,
0.91191,					
	0.91291,	0.91391,	0.91491,	0.91592,	0.91692,
0.91792,	0.91892,	0.91992,	0.92092,	0.92192,	0.92292,
0.92392,	0.92492,	0.92593,	0.92693,	0.92793,	0.92893,
0.92993,	0.93093,	0.93193,	0.93293,	0.93393,	0.93493,
0.93594,					
	0.93694,	0.93794,	0.93894,	0.93994,	0.94094,
0.94194,	0.94294,	0.94394,	0.94494,	0.94595,	0.94695,
0.94795,	0.94895,	0.94995,	0.95095,	0.95195,	0.95295,
0.95395,	0.95495,	0.95596,	0.95696,	0.95796,	0.95896,
0.95996,					
	0.96096,	0.96196,	0.96296,	0.96396,	0.96496,
0.96597,	0.96697,	0.96797,	0.96897,	0.96997,	0.97097,
0.97197,	0.97297,	0.97397,	0.97497,	0.97598,	0.97698,
0.97798,	0.97898,	0.97998,	0.98098,	0.98198,	0.98298,
0.98398,					
	0.98498,	0.98599,	0.98699,	0.98799,	0.98899,
0.98999,	0.99099,	0.99199,	0.99299,	0.99399,	0.99499,
0.996,	0.997,	0.998,	0.999,	1]), array([[
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0.98065,	0.9804,	0.9799,	0.97965,	0.97915,	
	0.97915,	0.97839,	0.97839,	0.97814,	0.97814,
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0.97588,	0.97563,	0.97563,	0.97538,	0.97538,	0.97538,
0.97538,	0.97538,	0.97513,	0.97487,	0.97487,	0.97487,
	0.97462,	0.97462,	0.97437,	0.97412,	0.97412,
0.97412,	0.97412,	0.97387,	0.97362,	0.97337,	0.97337,
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0.97286,	0.97286,	0.97286,	0.97286,	0.97286,	0.97284,
	0.97261,	0.97261,	0.97261,	0.97251,	0.97211,

0.97161,	0.97136,	0.97136,	0.97085,	0.97059,	0.97035,
0.9701,	0.96998,	0.96985,	0.9696,	0.9696,	0.96935,
0.96859,	0.96859,	0.96859,	0.96859,	0.96859,	0.96859,
	0.96859,	0.96834,	0.96802,	0.96754,	0.96709,
0.96709,	0.96709,	0.96709,	0.96709,	0.96709,	0.96709,
0.96709,	0.96709,	0.96683,	0.96683,	0.96683,	0.96669,
0.96658,	0.96658,	0.96633,	0.96608,	0.96561,	0.96551,
	0.96533,	0.96533,	0.96533,	0.96482,	0.96482,
0.96482,	0.96457,	0.96457,	0.96432,	0.96432,	0.96432,
0.96432,	0.96407,	0.96399,	0.96363,	0.96332,	0.96307,
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	0.96231,	0.96206,	0.96206,	0.96206,	0.96201,
0.96188,	0.96181,	0.96156,	0.96156,	0.96156,	0.96156,
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	0.96035,	0.96015,	0.96005,	0.95971,	0.95955,
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0.95636,	0.95628,	0.95628,	0.95627,	0.95617,	0.95607,
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	0.95578,	0.95565,	0.95553,	0.95553,	0.95553,
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	0.95201,	0.95201,	0.95201,	0.95201,	0.95201,
0.95201,	0.95194,	0.95176,	0.95176,	0.95176,	0.95176,
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	0.95126,	0.95126,	0.95126,	0.95126,	0.95118,
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0.95046,	0.95033,	0.95025,	0.95025,	0.95025,	0.95025,
0.95025,	0.94999,	0.94975,	0.9495,	0.94925,	0.94899,
	0.94861,	0.94849,	0.94849,	0.94824,	0.94824,
0.94824,	0.94811,	0.94774,	0.94774,	0.94774,	0.94774,
0.94774,	0.94774,	0.94749,	0.94749,	0.94749,	0.94724,
0.94724,	0.94724,	0.94724,	0.94724,	0.94724,	0.947,
	0.94648,	0.94648,	0.94648,	0.94648,	0.94647,
0.94632,	0.94618,	0.94603,	0.94598,	0.94598,	0.94598,
0.94598,	0.94598,	0.94598,	0.94598,	0.94598,	0.94598,
0.94598,	0.94598,	0.94574,	0.94534,	0.94497,	0.94497,
	0.94497,	0.94477,	0.94446,	0.94437,	0.94428,
0.94397,	0.94387,	0.94372,	0.94372,	0.94372,	0.94372,
0.94347,	0.94322,	0.94299,	0.94296,	0.94221,	0.94221,
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	0.94196,	0.94196,	0.9419,	0.94175,	0.94171,
0.94171,	0.94171,	0.94164,	0.94157,	0.9415,	0.94142,
0.94133,	0.94123,	0.94121,	0.94096,	0.9407,	0.9407,
0.94055,	0.94045,	0.9403,	0.94012,	0.93999,	0.93985,
	0.9397,	0.9392,	0.93913,	0.93894,	0.93887,
0.93869,	0.93844,	0.93811,	0.93798,	0.93794,	0.93794,
0.93769,	0.93769,	0.93765,	0.93752,	0.93744,	0.93744,
0.93744,	0.93744,	0.93744,	0.93744,	0.937,	0.93693,
	0.93643,	0.93643,	0.93643,	0.93642,	0.93627,
0.9359,	0.93581,	0.93572,	0.93556,	0.93535,	0.93521,
0.93518,	0.93518,	0.93518,	0.93495,	0.93479,	0.93467,
0.93465,	0.93452,	0.93442,	0.93442,	0.93442,	0.93434,
	0.93417,	0.93417,	0.934,	0.93383,	0.9337,
0.93332,	0.9332,	0.93297,	0.93291,	0.93266,	0.93266,
0.93265,	0.93259,	0.93253,	0.93246,	0.93216,	0.9321,
0.93191,	0.93191,	0.93183,	0.93141,	0.93141,	0.93137,
	0.93132,	0.93127,	0.93122,	0.93117,	0.93116,
0.93105,	0.93093,	0.93029,	0.93017,	0.92965,	0.92965,
0.9294,	0.9294,	0.92939,	0.92915,	0.92915,	0.92913,
0.92899,	0.92859,	0.92847,	0.92839,	0.92835,	0.92827,
	0.92818,	0.92801,	0.92789,	0.92774,	0.92748,
0.92739,	0.92736,	0.92732,	0.92727,	0.92723,	0.92719,
0.92714,	0.92714,	0.92714,	0.92681,	0.92673,	0.92664,
0.92663,	0.92663,	0.92663,	0.92663,	0.92663,	0.92663,
	0.92663,	0.9266,	0.92613,	0.92613,	0.92613,
0.92613,	0.92613,	0.92613,	0.92613,	0.92613,	0.92613,
0.92613,	0.92613,	0.92613,	0.92611,	0.92606,	0.92601,
0.92595,	0.9259,	0.92588,	0.92588,	0.9258,	0.92567,
	0.92546,	0.92538,	0.92538,	0.92538,	0.92531,
0.92523,	0.92514,	0.92502,	0.92489,	0.92465,	0.92414,
0.92388,	0.92381,	0.92374,	0.92368,	0.92361,	0.92353,
0.92344,	0.92312,	0.92312,	0.92312,	0.92307,	0.92286,
	0.92286,	0.92286,	0.92286,	0.92286,	0.92286,
0.92283,	0.92275,	0.92266,	0.92207,	0.92199,	0.9219,
0.92158,	0.92151,	0.92145,	0.92138,	0.9212,	0.92103,
0.9209,	0.92085,	0.92085,	0.92067,	0.9206,	0.9204,
	0.92035,	0.9203,	0.92023,	0.92017,	0.92011,
0.91974,	0.9196,	0.91948,	0.91935,	0.91935,	0.91928,
0.91915,	0.9191,	0.91859,	0.91859,	0.91859,	0.91855,
0.91848,	0.91842,	0.91835,	0.91824,	0.91811,	0.91777,
	0.91768,	0.9176,	0.91747,	0.91734,	0.91709,
0.91658,	0.91633,	0.91633,	0.91626,	0.91613,	0.91592,
0.91583,	0.91583,	0.91583,	0.91574,	0.91561,	0.91533,
0.91533,	0.91533,	0.91511,	0.91508,	0.91502,	0.91489,
	0.91477,	0.91464,	0.91432,	0.91432,	0.91432,
0.91425,	0.91412,	0.91407,	0.91407,	0.91377,	0.91332,
0.91326,	0.91303,	0.9129,	0.91248,	0.91231,	0.91231,

0.91231,	0.91231,	0.91231,	0.91181,	0.91181,	0.91181,
	0.91181,	0.91181,	0.91181,	0.91175,	0.91115,
0.911,	0.91091,	0.91083,	0.91062,	0.91036,	0.9101,
0.91005,	0.91005,	0.91005,	0.91005,	0.91005,	0.91005,
0.91005,	0.91005,	0.90971,	0.90963,	0.90928,	0.9085,
	0.90814,	0.90804,	0.90779,	0.90779,	0.90711,
0.90626,	0.90618,	0.90609,	0.90573,	0.90555,	0.90553,
0.90505,	0.90479,	0.90452,	0.90415,	0.90371,	0.90358,
0.90352,	0.90317,	0.90302,	0.90302,	0.90226,	0.90223,
	0.90206,	0.90158,	0.90151,	0.90151,	0.90118,
0.90101,	0.90083,	0.90054,	0.90039,	0.90026,	0.89964,
0.89919,	0.89906,	0.89866,	0.89848,	0.89822,	0.89799,
0.89799,	0.89774,	0.89774,	0.89737,	0.89698,	0.89698,
	0.89654,	0.89648,	0.89559,	0.89518,	0.89505,
0.89402,	0.8936,	0.89347,	0.89271,	0.89271,	0.89271,
0.89221,	0.89221,	0.89196,	0.89196,	0.89171,	0.89171,
0.89171,	0.89103,	0.89077,	0.89032,	0.8899,	0.88973,
	0.8897,	0.8897,	0.88945,	0.88887,	0.8887,
0.88778,	0.88738,	0.88725,	0.88609,	0.88516,	0.88499,
0.88452,	0.88415,	0.88398,	0.88305,	0.88264,	0.88251,
0.88228,	0.88216,	0.88152,	0.8811,	0.88093,	0.88075,
	0.88008,	0.87991,	0.8789,	0.87781,	0.87688,
0.87661,	0.87631,	0.87618,	0.8751,	0.8741,	0.87392,
0.87356,	0.87347,	0.87339,	0.87261,	0.87221,	0.8719,
0.87172,	0.87142,	0.87113,	0.87012,	0.86877,	0.86868,
	0.86859,	0.86657,	0.86599,	0.86532,	0.86514,
0.86397,	0.86379,	0.86362,	0.86295,	0.86245,	0.86175,
0.86117,	0.86042,	0.85922,	0.85887,	0.8584,	0.85772,
0.85755,	0.85655,	0.85587,	0.85544,	0.85477,	0.8546,
	0.85413,	0.85367,	0.85325,	0.85307,	0.85167,
0.85039,	0.84946,	0.84929,	0.8478,	0.8466,	0.84593,
0.84575,	0.84454,	0.84324,	0.84261,	0.84189,	0.84171,
0.84129,	0.8402,	0.83944,	0.83918,	0.83818,	0.838,
	0.83636,	0.83506,	0.83412,	0.83306,	0.83273,
0.83146,	0.82977,	0.82806,	0.82739,	0.82682,	0.82665,
0.8254,	0.82387,	0.823,	0.82098,	0.81951,	0.81882,
0.81705,	0.81531,	0.81514,	0.81466,	0.81248,	0.80968,
	0.80824,	0.80641,	0.80439,	0.80287,	0.80256,
0.80058,	0.80003,	0.79824,	0.79552,	0.79285,	0.79022,
0.78756,	0.78567,	0.78264,	0.78076,	0.77759,	0.77572,
0.77211,	0.76905,	0.76653,	0.76421,	0.75974,	0.75589,
	0.75219,	0.74908,	0.7453,	0.74228,	0.73985,
0.73622,	0.73169,	0.72841,	0.72563,	0.71707,	0.71204,
0.70725,	0.70447,	0.70044,	0.6939,	0.69112,	0.68658,
0.68374,	0.68015,	0.67826,	0.67347,	0.66516,	0.66214,
	0.65961,	0.65684,	0.65155,	0.64601,	0.64097,
0.63392,	0.62964,	0.62083,	0.61579,	0.60975,	0.60547,

```

0.60219,    0.59347,    0.58658,    0.58255,    0.57802,    0.57236,
0.56668,    0.56391,    0.55887,    0.55534,    0.54679,    0.53999,
          0.5342,    0.52866,    0.52563,    0.5206,    0.5143,
0.51077,    0.50171,    0.49642,    0.48912,    0.48609,    0.48106,
0.47351,    0.4657,    0.46142,    0.45412,    0.45135,    0.44447,
0.44074,    0.4302,    0.42014,    0.4151,    0.40604,    0.39874,
          0.38717,    0.37988,    0.37434,    0.37055,    0.36602,
0.35872,    0.35142,    0.34312,    0.33632,    0.33172,    0.32323,
0.31719,    0.30964,    0.30309,    0.29856,    0.29251,    0.2822,
0.27314,    0.2671,    0.25955,    0.24923,    0.24043,    0.23388,
          0.22683,    0.21501,    0.20746,    0.1979,    0.19211,
0.18155,    0.17299,    0.16368,    0.15387,    0.1433,    0.13199,
0.1179,    0.10734,    0.096772,    0.082186,    0.070867,    0.062563,
0.04446,    0.033644,    0.027601,    0.019297,    0.01451,    0.010478,
          0.0064451,    0.0034175,    0.0017025,    0.0009424,    0.00071931,
0.00059054,    0.0004844,    0.00042717,    0.00036994,    0.00031271,    0.00025548,
0,          0,          0,          0,          0,          0,          0,
0,          0,          0,          0,          0,          0,          0,
          0,          0,          0,          0,          0,          0,
0,          0,          0,          0,          0,          0,          0]],
'Confidence', 'Recall']]
fitness: 0.8840739189699331
keys: ['metrics/precision(B)', 'metrics/recall(B)', 'metrics/mAP50(B)',
'metrics/mAP50-95(B)']
maps: array([ 0.87391])
names: {0: 'cyclist'}
plot: True
results_dict: {'metrics/precision(B)': 0.9507571588968603, 'metrics/recall(B)':
0.9362692196863052, 'metrics/mAP50(B)': 0.9755110295917407,
'metrics/mAP50-95(B)': 0.8739142400119546, 'fitness': 0.8840739189699331}
save_dir: PosixPath('runs/detect/train')
speed: {'preprocess': 0.24768959497843787, 'inference': 0.7663504269721545,
'loss': 0.00022999355213899713, 'postprocess': 0.9158444927534759}
task: 'detect'

```

```

[59]: # Using best weights
best_weights_path = os.path.join("/content/runs/detect/train/weights/best.pt")
model = YOLO(best_weights_path)

```

0.6 Model Evaluation

```

[60]: # Evaluate the model on the test set
results = model.val(data=yaml_path, split="test")

```

Ultralytics 8.3.39 Python-3.10.12 torch-2.5.1+cu121 CUDA:0 (NVIDIA A100-SXM4-40GB, 40514MiB)
Model summary (fused): 168 layers, 3,005,843 parameters, 0 gradients, 8.1 GFLOPs

```

val: Scanning /content/splits/test/labels.cache... 1368 images, 138
backgrounds, 0 corrupt: 100%|      | 1368/1368 [00:00<?, ?it/s]
      Class      Images  Instances      Box(P          R      mAP50
mAP50-95): 100%|      | 86/86 [00:08<00:00, 9.67it/s]

      all      1368      2343      0.958      0.941      0.979
0.883
Speed: 0.3ms preprocess, 1.3ms inference, 0.0ms loss, 0.8ms postprocess per
image
Results saved to runs/detect/val

```

```

[61]: # Print overall evaluation metrics
print("Overall Test Metrics:")
print(f"Precision: {results.box.p[0]}") # Access precision using results.box.
    ↪ p[0]
print(f"Recall: {results.box.r[0]}")    # Access recall using results.box.r[0]
print(f"mAP@0.5: {results.maps[0]}")    # Access mAP@0.5 using results.maps[0]

# Check if results.maps has more than one element before accessing index 1
if len(results.maps) > 1:
    print(f"mAP@0.5:0.95: {results.maps[1]}") # Access mAP@0.5:0.95 using
    ↪ results.maps[1]
else:
    print("mAP@0.5:0.95: Not available") # Handle the case where mAP@0.5:0.95
    ↪ is not calculated

```

```

Overall Test Metrics:
Precision: 0.9578595658453999
Recall: 0.9410274520094075
mAP@0.5: 0.8829606445522306
mAP@0.5:0.95: Not available

```

0.6.1 Visualize Predictions

```

[62]: # Visualize predictions on test set
predictions = model.predict(
    source="/content/splits/test/images", # Path to test images
    save=True,                           # Save predictions to runs directory
    imgsz=1280,                           # Image size
    conf=0.25                             # Confidence threshold for predictions
)

```

WARNING inference results will accumulate in RAM unless `stream=True` is passed, causing potential out-of-memory errors for large sources or long-running streams and videos. See <https://docs.ultralytics.com/modes/predict/> for help.

Example:

```
results = model(source=..., stream=True) # generator of Results objects
for r in results:
    boxes = r.bboxes # Boxes object for bbox outputs
    masks = r.masks # Masks object for segment masks outputs
    probs = r.probs # Class probabilities for classification outputs

image 1/1368 /content/splits/test/images/000006.jpg: 640x1280 2 cyclists, 10.4ms
image 2/1368 /content/splits/test/images/000014.jpg: 640x1280 2 cyclists, 7.1ms
image 3/1368 /content/splits/test/images/000045.jpg: 640x1280 1 cyclist, 7.4ms
image 4/1368 /content/splits/test/images/000057.jpg: 640x1280 1 cyclist, 7.2ms
image 5/1368 /content/splits/test/images/000093.jpg: 640x1280 1 cyclist, 7.2ms
image 6/1368 /content/splits/test/images/000103.jpg: 640x1280 1 cyclist, 7.2ms
image 7/1368 /content/splits/test/images/000110.jpg: 640x1280 2 cyclists, 7.2ms
image 8/1368 /content/splits/test/images/000118.jpg: 640x1280 2 cyclists, 7.2ms
image 9/1368 /content/splits/test/images/000157.jpg: 640x1280 1 cyclist, 7.3ms
image 10/1368 /content/splits/test/images/000167.jpg: 640x1280 2 cyclists, 7.2ms
image 11/1368 /content/splits/test/images/000174.jpg: 640x1280 7 cyclists, 7.2ms
image 12/1368 /content/splits/test/images/000176.jpg: 640x1280 5 cyclists, 7.2ms
image 13/1368 /content/splits/test/images/000192.jpg: 640x1280 1 cyclist, 7.1ms
image 14/1368 /content/splits/test/images/000195.jpg: 640x1280 2 cyclists, 7.3ms
image 15/1368 /content/splits/test/images/000210.jpg: 640x1280 2 cyclists, 7.4ms
image 16/1368 /content/splits/test/images/000216.jpg: 640x1280 3 cyclists, 7.3ms
image 17/1368 /content/splits/test/images/000227.jpg: 640x1280 4 cyclists, 7.3ms
image 18/1368 /content/splits/test/images/000247.jpg: 640x1280 1 cyclist, 7.3ms
image 19/1368 /content/splits/test/images/000258.jpg: 640x1280 1 cyclist, 7.2ms
image 20/1368 /content/splits/test/images/000287.jpg: 640x1280 1 cyclist, 7.3ms
image 21/1368 /content/splits/test/images/000297.jpg: 640x1280 1 cyclist, 7.2ms
image 22/1368 /content/splits/test/images/000298.jpg: 640x1280 1 cyclist, 7.3ms
image 23/1368 /content/splits/test/images/000305.jpg: 640x1280 1 cyclist, 10.0ms
image 24/1368 /content/splits/test/images/000321.jpg: 640x1280 3 cyclists, 7.5ms
image 25/1368 /content/splits/test/images/000343.jpg: 640x1280 1 cyclist, 7.3ms
image 26/1368 /content/splits/test/images/000348.jpg: 640x1280 1 cyclist, 7.2ms
image 27/1368 /content/splits/test/images/000359.jpg: 640x1280 1 cyclist, 7.6ms
image 28/1368 /content/splits/test/images/000365.jpg: 640x1280 1 cyclist, 7.0ms
image 29/1368 /content/splits/test/images/000370.jpg: 640x1280 2 cyclists, 7.6ms
image 30/1368 /content/splits/test/images/000377.jpg: 640x1280 2 cyclists, 7.1ms
image 31/1368 /content/splits/test/images/000386.jpg: 640x1280 3 cyclists, 7.0ms
image 32/1368 /content/splits/test/images/000391.jpg: 640x1280 3 cyclists, 7.2ms
image 33/1368 /content/splits/test/images/000397.jpg: 640x1280 1 cyclist, 7.9ms
image 34/1368 /content/splits/test/images/000409.jpg: 640x1280 2 cyclists, 7.2ms
image 35/1368 /content/splits/test/images/000417.jpg: 640x1280 6 cyclists, 7.0ms
image 36/1368 /content/splits/test/images/000424.jpg: 640x1280 1 cyclist, 7.1ms
image 37/1368 /content/splits/test/images/000429.jpg: 640x1280 2 cyclists, 7.0ms
image 38/1368 /content/splits/test/images/000440.jpg: 640x1280 2 cyclists, 7.0ms
image 39/1368 /content/splits/test/images/000444.jpg: 640x1280 1 cyclist, 7.5ms
image 40/1368 /content/splits/test/images/000451.jpg: 640x1280 2 cyclists, 7.2ms
```

image 41/1368 /content/splits/test/images/000483.jpg: 640x1280 1 cyclist, 7.1ms
 image 42/1368 /content/splits/test/images/000492.jpg: 640x1280 1 cyclist, 7.5ms
 image 43/1368 /content/splits/test/images/000493.jpg: 640x1280 1 cyclist, 7.4ms
 image 44/1368 /content/splits/test/images/000497.jpg: 640x1280 1 cyclist, 7.8ms
 image 45/1368 /content/splits/test/images/000507.jpg: 640x1280 1 cyclist, 7.1ms
 image 46/1368 /content/splits/test/images/000509.jpg: 640x1280 1 cyclist, 7.1ms
 image 47/1368 /content/splits/test/images/000517.jpg: 640x1280 1 cyclist, 7.2ms
 image 48/1368 /content/splits/test/images/000518.jpg: 640x1280 1 cyclist, 7.1ms
 image 49/1368 /content/splits/test/images/000520.jpg: 640x1280 1 cyclist, 7.0ms
 image 50/1368 /content/splits/test/images/000521.jpg: 640x1280 1 cyclist, 7.1ms
 image 51/1368 /content/splits/test/images/000524.jpg: 640x1280 1 cyclist, 7.1ms
 image 52/1368 /content/splits/test/images/000525.jpg: 640x1280 1 cyclist, 7.2ms
 image 53/1368 /content/splits/test/images/000534.jpg: 640x1280 2 cyclists, 7.1ms
 image 54/1368 /content/splits/test/images/000539.jpg: 640x1280 2 cyclists, 7.1ms
 image 55/1368 /content/splits/test/images/000549.jpg: 640x1280 2 cyclists, 7.1ms
 image 56/1368 /content/splits/test/images/000589.jpg: 640x1280 1 cyclist, 7.0ms
 image 57/1368 /content/splits/test/images/000613.jpg: 640x1280 (no detections),
 7.1ms
 image 58/1368 /content/splits/test/images/000632.jpg: 640x1280 1 cyclist, 7.0ms
 image 59/1368 /content/splits/test/images/000644.jpg: 640x1280 4 cyclists, 7.1ms
 image 60/1368 /content/splits/test/images/000648.jpg: 640x1280 3 cyclists, 7.8ms
 image 61/1368 /content/splits/test/images/000660.jpg: 640x1280 2 cyclists, 7.3ms
 image 62/1368 /content/splits/test/images/000662.jpg: 640x1280 2 cyclists, 7.0ms
 image 63/1368 /content/splits/test/images/000666.jpg: 640x1280 1 cyclist, 7.0ms
 image 64/1368 /content/splits/test/images/000673.jpg: 640x1280 3 cyclists, 7.2ms
 image 65/1368 /content/splits/test/images/000680.jpg: 640x1280 1 cyclist, 7.1ms
 image 66/1368 /content/splits/test/images/000683.jpg: 640x1280 1 cyclist, 7.2ms
 image 67/1368 /content/splits/test/images/000685.jpg: 640x1280 1 cyclist, 7.7ms
 image 68/1368 /content/splits/test/images/000686.jpg: 640x1280 1 cyclist, 8.3ms
 image 69/1368 /content/splits/test/images/000701.jpg: 640x1280 1 cyclist, 7.9ms
 image 70/1368 /content/splits/test/images/000704.jpg: 640x1280 1 cyclist, 7.6ms
 image 71/1368 /content/splits/test/images/000705.jpg: 640x1280 1 cyclist, 7.2ms
 image 72/1368 /content/splits/test/images/000720.jpg: 640x1280 1 cyclist, 7.5ms
 image 73/1368 /content/splits/test/images/000728.jpg: 640x1280 1 cyclist, 7.5ms
 image 74/1368 /content/splits/test/images/000729.jpg: 640x1280 1 cyclist, 7.3ms
 image 75/1368 /content/splits/test/images/000738.jpg: 640x1280 1 cyclist, 7.3ms
 image 76/1368 /content/splits/test/images/000743.jpg: 640x1280 2 cyclists, 7.1ms
 image 77/1368 /content/splits/test/images/000756.jpg: 640x1280 8 cyclists, 7.1ms
 image 78/1368 /content/splits/test/images/000773.jpg: 640x1280 1 cyclist, 7.1ms
 image 79/1368 /content/splits/test/images/000774.jpg: 640x1280 1 cyclist, 7.1ms
 image 80/1368 /content/splits/test/images/000781.jpg: 640x1280 1 cyclist, 7.2ms
 image 81/1368 /content/splits/test/images/000785.jpg: 640x1280 1 cyclist, 7.5ms
 image 82/1368 /content/splits/test/images/000790.jpg: 640x1280 1 cyclist, 9.5ms
 image 83/1368 /content/splits/test/images/000799.jpg: 640x1280 3 cyclists, 8.6ms
 image 84/1368 /content/splits/test/images/000800.jpg: 640x1280 2 cyclists, 7.1ms
 image 85/1368 /content/splits/test/images/000819.jpg: 640x1280 2 cyclists, 7.1ms
 image 86/1368 /content/splits/test/images/000828.jpg: 640x1280 2 cyclists, 7.1ms
 image 87/1368 /content/splits/test/images/000829.jpg: 640x1280 1 cyclist, 7.1ms

image 88/1368 /content/splits/test/images/000858.jpg: 640x1280 1 cyclist, 6.9ms
 image 89/1368 /content/splits/test/images/000865.jpg: 640x1280 1 cyclist, 7.2ms
 image 90/1368 /content/splits/test/images/000877.jpg: 640x1280 2 cyclists, 7.2ms
 image 91/1368 /content/splits/test/images/000881.jpg: 640x1280 3 cyclists, 7.3ms
 image 92/1368 /content/splits/test/images/000884.jpg: 640x1280 3 cyclists, 7.1ms
 image 93/1368 /content/splits/test/images/000888.jpg: 640x1280 3 cyclists, 7.3ms
 image 94/1368 /content/splits/test/images/000927.jpg: 640x1280 1 cyclist, 8.2ms
 image 95/1368 /content/splits/test/images/000933.jpg: 640x1280 1 cyclist, 8.1ms
 image 96/1368 /content/splits/test/images/000937.jpg: 640x1280 1 cyclist, 7.5ms
 image 97/1368 /content/splits/test/images/000953.jpg: 640x1280 2 cyclists, 8.8ms
 image 98/1368 /content/splits/test/images/000969.jpg: 640x1280 1 cyclist, 8.3ms
 image 99/1368 /content/splits/test/images/000977.jpg: 640x1280 3 cyclists, 7.5ms
 image 100/1368 /content/splits/test/images/001000.jpg: 640x1280 2 cyclists,
 7.5ms
 image 101/1368 /content/splits/test/images/001003.jpg: 640x1280 2 cyclists,
 7.6ms
 image 102/1368 /content/splits/test/images/001023.jpg: 640x1280 1 cyclist, 7.6ms
 image 103/1368 /content/splits/test/images/001030.jpg: 640x1280 2 cyclists,
 7.7ms
 image 104/1368 /content/splits/test/images/001033.jpg: 640x1280 1 cyclist, 8.0ms
 image 105/1368 /content/splits/test/images/001034.jpg: 640x1280 1 cyclist, 7.3ms
 image 106/1368 /content/splits/test/images/001037.jpg: 640x1280 (no detections),
 7.3ms
 image 107/1368 /content/splits/test/images/001040.jpg: 640x1280 1 cyclist, 7.6ms
 image 108/1368 /content/splits/test/images/001047.jpg: 640x1280 1 cyclist, 7.1ms
 image 109/1368 /content/splits/test/images/001054.jpg: 640x1280 1 cyclist, 7.2ms
 image 110/1368 /content/splits/test/images/001055.jpg: 640x1280 1 cyclist, 7.8ms
 image 111/1368 /content/splits/test/images/001056.jpg: 640x1280 2 cyclists,
 7.5ms
 image 112/1368 /content/splits/test/images/001057.jpg: 640x1280 1 cyclist, 7.6ms
 image 113/1368 /content/splits/test/images/001071.jpg: 640x1280 1 cyclist, 7.4ms
 image 114/1368 /content/splits/test/images/001091.jpg: 640x1280 4 cyclists,
 7.4ms
 image 115/1368 /content/splits/test/images/001097.jpg: 640x1280 4 cyclists,
 7.5ms
 image 116/1368 /content/splits/test/images/001098.jpg: 640x1280 2 cyclists,
 7.2ms
 image 117/1368 /content/splits/test/images/001103.jpg: 640x1280 4 cyclists,
 7.7ms
 image 118/1368 /content/splits/test/images/001105.jpg: 640x1280 3 cyclists,
 7.4ms
 image 119/1368 /content/splits/test/images/001112.jpg: 640x1280 4 cyclists,
 7.8ms
 image 120/1368 /content/splits/test/images/001114.jpg: 640x1280 4 cyclists,
 7.8ms
 image 121/1368 /content/splits/test/images/001133.jpg: 640x1280 4 cyclists,
 7.4ms
 image 122/1368 /content/splits/test/images/001136.jpg: 640x1280 4 cyclists,

7.5ms
 image 123/1368 /content/splits/test/images/001146.jpg: 640x1280 2 cyclists,
 7.5ms
 image 124/1368 /content/splits/test/images/001148.jpg: 640x1280 3 cyclists,
 7.4ms
 image 125/1368 /content/splits/test/images/001164.jpg: 640x1280 1 cyclist, 7.9ms
 image 126/1368 /content/splits/test/images/001176.jpg: 640x1280 2 cyclists,
 8.0ms
 image 127/1368 /content/splits/test/images/001186.jpg: 640x1280 1 cyclist, 7.4ms
 image 128/1368 /content/splits/test/images/001187.jpg: 640x1280 2 cyclists,
 7.4ms
 image 129/1368 /content/splits/test/images/001195.jpg: 640x1280 1 cyclist, 7.3ms
 image 130/1368 /content/splits/test/images/001196.jpg: 640x1280 1 cyclist, 7.4ms
 image 131/1368 /content/splits/test/images/001199.jpg: 640x1280 1 cyclist, 7.4ms
 image 132/1368 /content/splits/test/images/001216.jpg: 640x1280 1 cyclist, 7.4ms
 image 133/1368 /content/splits/test/images/001222.jpg: 640x1280 1 cyclist, 7.3ms
 image 134/1368 /content/splits/test/images/001224.jpg: 640x1280 1 cyclist, 7.4ms
 image 135/1368 /content/splits/test/images/001235.jpg: 640x1280 1 cyclist, 7.6ms
 image 136/1368 /content/splits/test/images/001246.jpg: 640x1280 1 cyclist, 7.4ms
 image 137/1368 /content/splits/test/images/001257.jpg: 640x1280 (no detections),
 7.3ms
 image 138/1368 /content/splits/test/images/001270.jpg: 640x1280 1 cyclist, 7.8ms
 image 139/1368 /content/splits/test/images/001271.jpg: 640x1280 1 cyclist, 7.5ms
 image 140/1368 /content/splits/test/images/001310.jpg: 640x1280 1 cyclist, 7.5ms
 image 141/1368 /content/splits/test/images/001320.jpg: 640x1280 1 cyclist, 8.0ms
 image 142/1368 /content/splits/test/images/001321.jpg: 640x1280 1 cyclist, 7.6ms
 image 143/1368 /content/splits/test/images/001328.jpg: 640x1280 3 cyclists,
 7.6ms
 image 144/1368 /content/splits/test/images/001340.jpg: 640x1280 1 cyclist, 7.5ms
 image 145/1368 /content/splits/test/images/001344.jpg: 640x1280 1 cyclist, 7.9ms
 image 146/1368 /content/splits/test/images/001355.jpg: 640x1280 1 cyclist, 7.7ms
 image 147/1368 /content/splits/test/images/001357.jpg: 640x1280 1 cyclist, 7.5ms
 image 148/1368 /content/splits/test/images/001359.jpg: 640x1280 2 cyclists,
 7.6ms
 image 149/1368 /content/splits/test/images/001370.jpg: 640x1280 2 cyclists,
 7.4ms
 image 150/1368 /content/splits/test/images/001376.jpg: 640x1280 3 cyclists,
 7.4ms
 image 151/1368 /content/splits/test/images/001380.jpg: 640x1280 3 cyclists,
 7.5ms
 image 152/1368 /content/splits/test/images/001381.jpg: 640x1280 2 cyclists,
 7.3ms
 image 153/1368 /content/splits/test/images/001393.jpg: 640x1280 1 cyclist, 7.4ms
 image 154/1368 /content/splits/test/images/001398.jpg: 640x1280 1 cyclist, 7.3ms
 image 155/1368 /content/splits/test/images/001408.jpg: 640x1280 2 cyclists,
 7.3ms
 image 156/1368 /content/splits/test/images/001418.jpg: 640x1280 2 cyclists,
 7.7ms

image 157/1368 /content/splits/test/images/001420.jpg: 640x1280 1 cyclist, 7.1ms
 image 158/1368 /content/splits/test/images/001423.jpg: 640x1280 1 cyclist, 7.2ms
 image 159/1368 /content/splits/test/images/001425.jpg: 640x1280 1 cyclist, 7.2ms
 image 160/1368 /content/splits/test/images/001427.jpg: 640x1280 1 cyclist, 7.6ms
 image 161/1368 /content/splits/test/images/001436.jpg: 640x1280 1 cyclist, 7.3ms
 image 162/1368 /content/splits/test/images/001442.jpg: 640x1280 2 cyclists,
 7.2ms
 image 163/1368 /content/splits/test/images/001454.jpg: 640x1280 1 cyclist, 7.4ms
 image 164/1368 /content/splits/test/images/001462.jpg: 640x1280 1 cyclist, 7.7ms
 image 165/1368 /content/splits/test/images/001463.jpg: 640x1280 1 cyclist, 9.9ms
 image 166/1368 /content/splits/test/images/001466.jpg: 640x1280 1 cyclist, 8.2ms
 image 167/1368 /content/splits/test/images/001470.jpg: 640x1280 4 cyclists,
 8.1ms
 image 168/1368 /content/splits/test/images/001473.jpg: 640x1280 1 cyclist, 9.9ms
 image 169/1368 /content/splits/test/images/001487.jpg: 640x1280 3 cyclists,
 10.4ms
 image 170/1368 /content/splits/test/images/001489.jpg: 640x1280 1 cyclist,
 10.1ms
 image 171/1368 /content/splits/test/images/001497.jpg: 640x1280 3 cyclists,
 8.4ms
 image 172/1368 /content/splits/test/images/001499.jpg: 640x1280 2 cyclists,
 9.2ms
 image 173/1368 /content/splits/test/images/001500.jpg: 640x1280 2 cyclists,
 8.1ms
 image 174/1368 /content/splits/test/images/001502.jpg: 640x1280 2 cyclists,
 7.4ms
 image 175/1368 /content/splits/test/images/001503.jpg: 640x1280 4 cyclists,
 7.4ms
 image 176/1368 /content/splits/test/images/001505.jpg: 640x1280 4 cyclists,
 7.0ms
 image 177/1368 /content/splits/test/images/001507.jpg: 640x1280 4 cyclists,
 7.1ms
 image 178/1368 /content/splits/test/images/001514.jpg: 640x1280 3 cyclists,
 7.1ms
 image 179/1368 /content/splits/test/images/001523.jpg: 640x1280 3 cyclists,
 7.1ms
 image 180/1368 /content/splits/test/images/001526.jpg: 640x1280 4 cyclists,
 7.0ms
 image 181/1368 /content/splits/test/images/001538.jpg: 640x1280 4 cyclists,
 7.3ms
 image 182/1368 /content/splits/test/images/001545.jpg: 640x1280 4 cyclists,
 7.0ms
 image 183/1368 /content/splits/test/images/001555.jpg: 640x1280 3 cyclists,
 7.0ms
 image 184/1368 /content/splits/test/images/001567.jpg: 640x1280 6 cyclists,
 7.0ms
 image 185/1368 /content/splits/test/images/001582.jpg: 640x1280 4 cyclists,
 7.0ms

image 186/1368 /content/splits/test/images/001586.jpg: 640x1280 3 cyclists,
 7.2ms
 image 187/1368 /content/splits/test/images/001588.jpg: 640x1280 2 cyclists,
 7.0ms
 image 188/1368 /content/splits/test/images/001591.jpg: 640x1280 3 cyclists,
 7.0ms
 image 189/1368 /content/splits/test/images/001605.jpg: 640x1280 4 cyclists,
 7.1ms
 image 190/1368 /content/splits/test/images/001615.jpg: 640x1280 4 cyclists,
 7.3ms
 image 191/1368 /content/splits/test/images/001619.jpg: 640x1280 2 cyclists,
 7.5ms
 image 192/1368 /content/splits/test/images/001620.jpg: 640x1280 2 cyclists,
 9.2ms
 image 193/1368 /content/splits/test/images/001632.jpg: 640x1280 3 cyclists,
 7.5ms
 image 194/1368 /content/splits/test/images/001633.jpg: 640x1280 2 cyclists,
 7.5ms
 image 195/1368 /content/splits/test/images/001637.jpg: 640x1280 5 cyclists,
 7.6ms
 image 196/1368 /content/splits/test/images/001651.jpg: 640x1280 1 cyclist, 7.2ms
 image 197/1368 /content/splits/test/images/001655.jpg: 640x1280 2 cyclists,
 7.2ms
 image 198/1368 /content/splits/test/images/001671.jpg: 640x1280 2 cyclists,
 7.1ms
 image 199/1368 /content/splits/test/images/001672.jpg: 640x1280 1 cyclist, 7.5ms
 image 200/1368 /content/splits/test/images/001675.jpg: 640x1280 2 cyclists,
 7.3ms
 image 201/1368 /content/splits/test/images/001694.jpg: 640x1280 1 cyclist, 7.4ms
 image 202/1368 /content/splits/test/images/001704.jpg: 640x1280 1 cyclist, 7.6ms
 image 203/1368 /content/splits/test/images/001710.jpg: 640x1280 1 cyclist, 7.2ms
 image 204/1368 /content/splits/test/images/001712.jpg: 640x1280 1 cyclist, 7.3ms
 image 205/1368 /content/splits/test/images/001727.jpg: 640x1280 1 cyclist, 7.3ms
 image 206/1368 /content/splits/test/images/001734.jpg: 640x1280 4 cyclists,
 7.3ms
 image 207/1368 /content/splits/test/images/001744.jpg: 640x1280 4 cyclists,
 8.2ms
 image 208/1368 /content/splits/test/images/001762.jpg: 640x1280 3 cyclists,
 7.2ms
 image 209/1368 /content/splits/test/images/001773.jpg: 640x1280 2 cyclists,
 7.1ms
 image 210/1368 /content/splits/test/images/001791.jpg: 640x1280 1 cyclist, 7.3ms
 image 211/1368 /content/splits/test/images/001796.jpg: 640x1280 1 cyclist, 7.9ms
 image 212/1368 /content/splits/test/images/001815.jpg: 640x1280 5 cyclists,
 7.4ms
 image 213/1368 /content/splits/test/images/001817.jpg: 640x1280 4 cyclists,
 7.3ms
 image 214/1368 /content/splits/test/images/001826.jpg: 640x1280 3 cyclists,

7.8ms
 image 215/1368 /content/splits/test/images/001830.jpg: 640x1280 4 cyclists,
 7.8ms
 image 216/1368 /content/splits/test/images/001844.jpg: 640x1280 2 cyclists,
 7.6ms
 image 217/1368 /content/splits/test/images/001845.jpg: 640x1280 2 cyclists,
 7.9ms
 image 218/1368 /content/splits/test/images/001846.jpg: 640x1280 2 cyclists,
 7.5ms
 image 219/1368 /content/splits/test/images/001854.jpg: 640x1280 3 cyclists,
 7.3ms
 image 220/1368 /content/splits/test/images/001855.jpg: 640x1280 3 cyclists,
 7.9ms
 image 221/1368 /content/splits/test/images/001858.jpg: 640x1280 1 cyclist, 7.5ms
 image 222/1368 /content/splits/test/images/001860.jpg: 640x1280 1 cyclist, 7.6ms
 image 223/1368 /content/splits/test/images/001862.jpg: 640x1280 1 cyclist, 7.4ms
 image 224/1368 /content/splits/test/images/001871.jpg: 640x1280 1 cyclist, 7.2ms
 image 225/1368 /content/splits/test/images/001877.jpg: 640x1280 1 cyclist, 7.2ms
 image 226/1368 /content/splits/test/images/001899.jpg: 640x1280 1 cyclist, 7.3ms
 image 227/1368 /content/splits/test/images/001902.jpg: 640x1280 1 cyclist, 7.3ms
 image 228/1368 /content/splits/test/images/001907.jpg: 640x1280 3 cyclists,
 7.2ms
 image 229/1368 /content/splits/test/images/001912.jpg: 640x1280 4 cyclists,
 7.1ms
 image 230/1368 /content/splits/test/images/001917.jpg: 640x1280 1 cyclist, 7.3ms
 image 231/1368 /content/splits/test/images/001921.jpg: 640x1280 1 cyclist, 7.1ms
 image 232/1368 /content/splits/test/images/001929.jpg: 640x1280 1 cyclist, 7.1ms
 image 233/1368 /content/splits/test/images/001970.jpg: 640x1280 1 cyclist, 7.0ms
 image 234/1368 /content/splits/test/images/001973.jpg: 640x1280 1 cyclist, 7.0ms
 image 235/1368 /content/splits/test/images/001979.jpg: 640x1280 1 cyclist, 7.0ms
 image 236/1368 /content/splits/test/images/001995.jpg: 640x1280 1 cyclist, 7.2ms
 image 237/1368 /content/splits/test/images/001999.jpg: 640x1280 1 cyclist, 7.0ms
 image 238/1368 /content/splits/test/images/002004.jpg: 640x1280 1 cyclist, 7.0ms
 image 239/1368 /content/splits/test/images/002006.jpg: 640x1280 1 cyclist, 7.0ms
 image 240/1368 /content/splits/test/images/002011.jpg: 640x1280 1 cyclist, 7.0ms
 image 241/1368 /content/splits/test/images/002018.jpg: 640x1280 1 cyclist, 7.3ms
 image 242/1368 /content/splits/test/images/002035.jpg: 640x1280 1 cyclist, 7.3ms
 image 243/1368 /content/splits/test/images/002049.jpg: 640x1280 1 cyclist, 7.1ms
 image 244/1368 /content/splits/test/images/002055.jpg: 640x1280 1 cyclist, 7.2ms
 image 245/1368 /content/splits/test/images/002057.jpg: 640x1280 1 cyclist, 7.3ms
 image 246/1368 /content/splits/test/images/002076.jpg: 640x1280 1 cyclist, 7.4ms
 image 247/1368 /content/splits/test/images/002084.jpg: 640x1280 1 cyclist, 7.3ms
 image 248/1368 /content/splits/test/images/002087.jpg: 640x1280 2 cyclists,
 7.2ms
 image 249/1368 /content/splits/test/images/002123.jpg: 640x1280 1 cyclist, 7.3ms
 image 250/1368 /content/splits/test/images/002142.jpg: 640x1280 1 cyclist, 7.1ms
 image 251/1368 /content/splits/test/images/002146.jpg: 640x1280 1 cyclist, 7.2ms
 image 252/1368 /content/splits/test/images/002148.jpg: 640x1280 2 cyclists,

7.7ms
 image 253/1368 /content/splits/test/images/002158.jpg: 640x1280 2 cyclists,
 7.1ms
 image 254/1368 /content/splits/test/images/002165.jpg: 640x1280 2 cyclists,
 8.0ms
 image 255/1368 /content/splits/test/images/002177.jpg: 640x1280 2 cyclists,
 7.1ms
 image 256/1368 /content/splits/test/images/002182.jpg: 640x1280 2 cyclists,
 7.0ms
 image 257/1368 /content/splits/test/images/002183.jpg: 640x1280 3 cyclists,
 7.0ms
 image 258/1368 /content/splits/test/images/002200.jpg: 640x1280 1 cyclist, 7.1ms
 image 259/1368 /content/splits/test/images/002222.jpg: 640x1280 1 cyclist, 7.0ms
 image 260/1368 /content/splits/test/images/002244.jpg: 640x1280 2 cyclists,
 7.0ms
 image 261/1368 /content/splits/test/images/002252.jpg: 640x1280 1 cyclist, 7.2ms
 image 262/1368 /content/splits/test/images/002268.jpg: 640x1280 1 cyclist, 7.0ms
 image 263/1368 /content/splits/test/images/002288.jpg: 640x1280 2 cyclists,
 7.1ms
 image 264/1368 /content/splits/test/images/002304.jpg: 640x1280 1 cyclist, 7.1ms
 image 265/1368 /content/splits/test/images/002336.jpg: 640x1280 1 cyclist, 7.1ms
 image 266/1368 /content/splits/test/images/002378.jpg: 640x1280 2 cyclists,
 17.4ms
 image 267/1368 /content/splits/test/images/002379.jpg: 640x1280 2 cyclists,
 24.1ms
 image 268/1368 /content/splits/test/images/002382.jpg: 640x1280 1 cyclist,
 18.5ms
 image 269/1368 /content/splits/test/images/002395.jpg: 640x1280 2 cyclists,
 7.4ms
 image 270/1368 /content/splits/test/images/002399.jpg: 640x1280 1 cyclist, 7.2ms
 image 271/1368 /content/splits/test/images/002411.jpg: 640x1280 1 cyclist, 7.2ms
 image 272/1368 /content/splits/test/images/002428.jpg: 640x1280 1 cyclist, 7.6ms
 image 273/1368 /content/splits/test/images/002436.jpg: 640x1280 1 cyclist, 7.1ms
 image 274/1368 /content/splits/test/images/002438.jpg: 640x1280 2 cyclists,
 7.1ms
 image 275/1368 /content/splits/test/images/002447.jpg: 640x1280 2 cyclists,
 7.1ms
 image 276/1368 /content/splits/test/images/002448.jpg: 640x1280 2 cyclists,
 7.2ms
 image 277/1368 /content/splits/test/images/002456.jpg: 640x1280 1 cyclist, 7.3ms
 image 278/1368 /content/splits/test/images/002465.jpg: 640x1280 1 cyclist, 7.1ms
 image 279/1368 /content/splits/test/images/002468.jpg: 640x1280 1 cyclist, 7.0ms
 image 280/1368 /content/splits/test/images/002473.jpg: 640x1280 1 cyclist, 7.3ms
 image 281/1368 /content/splits/test/images/002488.jpg: 640x1280 1 cyclist, 7.2ms
 image 282/1368 /content/splits/test/images/002489.jpg: 640x1280 1 cyclist, 7.1ms
 image 283/1368 /content/splits/test/images/002494.jpg: 640x1280 1 cyclist, 7.2ms
 image 284/1368 /content/splits/test/images/002497.jpg: 640x1280 1 cyclist, 7.1ms
 image 285/1368 /content/splits/test/images/002499.jpg: 640x1280 1 cyclist, 7.2ms

image 286/1368 /content/splits/test/images/002509.jpg: 640x1280 1 cyclist, 7.3ms
 image 287/1368 /content/splits/test/images/002517.jpg: 640x1280 1 cyclist, 7.8ms
 image 288/1368 /content/splits/test/images/002521.jpg: 640x1280 1 cyclist, 7.4ms
 image 289/1368 /content/splits/test/images/002529.jpg: 640x1280 1 cyclist, 8.6ms
 image 290/1368 /content/splits/test/images/002537.jpg: 640x1280 1 cyclist, 9.0ms
 image 291/1368 /content/splits/test/images/002568.jpg: 640x1280 2 cyclists,
 7.7ms
 image 292/1368 /content/splits/test/images/002571.jpg: 640x1280 1 cyclist, 7.1ms
 image 293/1368 /content/splits/test/images/002606.jpg: 640x1280 1 cyclist, 7.1ms
 image 294/1368 /content/splits/test/images/002617.jpg: 640x1280 2 cyclists,
 7.3ms
 image 295/1368 /content/splits/test/images/002665.jpg: 640x1280 1 cyclist, 7.3ms
 image 296/1368 /content/splits/test/images/002671.jpg: 640x1280 1 cyclist, 7.2ms
 image 297/1368 /content/splits/test/images/002677.jpg: 640x1280 1 cyclist, 7.2ms
 image 298/1368 /content/splits/test/images/002685.jpg: 640x1280 1 cyclist, 7.2ms
 image 299/1368 /content/splits/test/images/002694.jpg: 640x1280 1 cyclist, 7.1ms
 image 300/1368 /content/splits/test/images/002698.jpg: 640x1280 1 cyclist, 7.1ms
 image 301/1368 /content/splits/test/images/002708.jpg: 640x1280 1 cyclist,
 11.6ms
 image 302/1368 /content/splits/test/images/002713.jpg: 640x1280 1 cyclist, 7.2ms
 image 303/1368 /content/splits/test/images/002724.jpg: 640x1280 (no detections),
 7.1ms
 image 304/1368 /content/splits/test/images/002728.jpg: 640x1280 1 cyclist, 7.3ms
 image 305/1368 /content/splits/test/images/002746.jpg: 640x1280 1 cyclist, 7.3ms
 image 306/1368 /content/splits/test/images/002750.jpg: 640x1280 1 cyclist, 7.9ms
 image 307/1368 /content/splits/test/images/002757.jpg: 640x1280 1 cyclist,
 24.9ms
 image 308/1368 /content/splits/test/images/002791.jpg: 640x1280 1 cyclist,
 20.2ms
 image 309/1368 /content/splits/test/images/002799.jpg: 640x1280 1 cyclist, 7.7ms
 image 310/1368 /content/splits/test/images/002804.jpg: 640x1280 1 cyclist, 7.3ms
 image 311/1368 /content/splits/test/images/002817.jpg: 640x1280 2 cyclists,
 7.3ms
 image 312/1368 /content/splits/test/images/002837.jpg: 640x1280 1 cyclist, 7.3ms
 image 313/1368 /content/splits/test/images/002842.jpg: 640x1280 1 cyclist, 7.4ms
 image 314/1368 /content/splits/test/images/002850.jpg: 640x1280 1 cyclist, 7.6ms
 image 315/1368 /content/splits/test/images/002857.jpg: 640x1280 2 cyclists,
 7.2ms
 image 316/1368 /content/splits/test/images/002861.jpg: 640x1280 2 cyclists,
 7.1ms
 image 317/1368 /content/splits/test/images/002878.jpg: 640x1280 1 cyclist, 7.4ms
 image 318/1368 /content/splits/test/images/002885.jpg: 640x1280 1 cyclist, 7.4ms
 image 319/1368 /content/splits/test/images/002914.jpg: 640x1280 1 cyclist, 7.0ms
 image 320/1368 /content/splits/test/images/002923.jpg: 640x1280 1 cyclist, 7.1ms
 image 321/1368 /content/splits/test/images/002927.jpg: 640x1280 1 cyclist, 7.0ms
 image 322/1368 /content/splits/test/images/002933.jpg: 640x1280 1 cyclist, 8.1ms
 image 323/1368 /content/splits/test/images/002935.jpg: 640x1280 1 cyclist, 7.1ms
 image 324/1368 /content/splits/test/images/002969.jpg: 640x1280 2 cyclists,

7.2ms
image 325/1368 /content/splits/test/images/002973.jpg: 640x1280 (no detections),
7.0ms
image 326/1368 /content/splits/test/images/002987.jpg: 640x1280 1 cyclist, 7.0ms
image 327/1368 /content/splits/test/images/003016.jpg: 640x1280 2 cyclists,
7.0ms
image 328/1368 /content/splits/test/images/003018.jpg: 640x1280 1 cyclist, 7.3ms
image 329/1368 /content/splits/test/images/003023.jpg: 640x1280 1 cyclist, 7.2ms
image 330/1368 /content/splits/test/images/003045.jpg: 640x1280 1 cyclist, 7.0ms
image 331/1368 /content/splits/test/images/003055.jpg: 640x1280 1 cyclist, 7.2ms
image 332/1368 /content/splits/test/images/003056.jpg: 640x1280 1 cyclist, 7.0ms
image 333/1368 /content/splits/test/images/003064.jpg: 640x1280 1 cyclist, 8.5ms
image 334/1368 /content/splits/test/images/003078.jpg: 640x1280 1 cyclist, 9.0ms
image 335/1368 /content/splits/test/images/003110.jpg: 640x1280 1 cyclist,
28.7ms
image 336/1368 /content/splits/test/images/003125.jpg: 640x1280 2 cyclists,
7.3ms
image 337/1368 /content/splits/test/images/003138.jpg: 640x1280 1 cyclist, 7.4ms
image 338/1368 /content/splits/test/images/003140.jpg: 640x1280 1 cyclist, 7.6ms
image 339/1368 /content/splits/test/images/003155.jpg: 640x1280 1 cyclist, 7.4ms
image 340/1368 /content/splits/test/images/003157.jpg: 640x1280 1 cyclist, 7.2ms
image 341/1368 /content/splits/test/images/003158.jpg: 640x1280 1 cyclist, 7.2ms
image 342/1368 /content/splits/test/images/003162.jpg: 640x1280 1 cyclist, 7.4ms
image 343/1368 /content/splits/test/images/003185.jpg: 640x1280 1 cyclist, 7.1ms
image 344/1368 /content/splits/test/images/003198.jpg: 640x1280 2 cyclists,
7.4ms
image 345/1368 /content/splits/test/images/003200.jpg: 640x1280 2 cyclists,
7.1ms
image 346/1368 /content/splits/test/images/003206.jpg: 640x1280 2 cyclists,
7.1ms
image 347/1368 /content/splits/test/images/003207.jpg: 640x1280 2 cyclists,
8.1ms
image 348/1368 /content/splits/test/images/003208.jpg: 640x1280 2 cyclists,
7.0ms
image 349/1368 /content/splits/test/images/003212.jpg: 640x1280 1 cyclist,
21.0ms
image 350/1368 /content/splits/test/images/003226.jpg: 640x1280 1 cyclist,
21.5ms
image 351/1368 /content/splits/test/images/003228.jpg: 640x1280 (no detections),
10.4ms
image 352/1368 /content/splits/test/images/003243.jpg: 640x1280 2 cyclists,
7.2ms
image 353/1368 /content/splits/test/images/003245.jpg: 640x1280 1 cyclist, 8.4ms
image 354/1368 /content/splits/test/images/003250.jpg: 640x1280 1 cyclist, 7.3ms
image 355/1368 /content/splits/test/images/003269.jpg: 640x1280 1 cyclist, 7.3ms
image 356/1368 /content/splits/test/images/003276.jpg: 640x1280 1 cyclist, 7.7ms
image 357/1368 /content/splits/test/images/003283.jpg: 640x1280 1 cyclist, 8.2ms
image 358/1368 /content/splits/test/images/003297.jpg: 640x1280 1 cyclist, 7.5ms

image 359/1368 /content/splits/test/images/003304.jpg: 640x1280 2 cyclists,
 7.4ms
 image 360/1368 /content/splits/test/images/003323.jpg: 640x1280 1 cyclist, 7.5ms
 image 361/1368 /content/splits/test/images/003337.jpg: 640x1280 1 cyclist, 7.5ms
 image 362/1368 /content/splits/test/images/003344.jpg: 640x1280 1 cyclist, 7.2ms
 image 363/1368 /content/splits/test/images/003346.jpg: 640x1280 1 cyclist, 7.5ms
 image 364/1368 /content/splits/test/images/003352.jpg: 640x1280 1 cyclist, 7.3ms
 image 365/1368 /content/splits/test/images/003365.jpg: 640x1280 1 cyclist, 7.4ms
 image 366/1368 /content/splits/test/images/003380.jpg: 640x1280 1 cyclist, 8.7ms
 image 367/1368 /content/splits/test/images/003385.jpg: 640x1280 2 cyclists,
 7.5ms
 image 368/1368 /content/splits/test/images/003393.jpg: 640x1280 1 cyclist, 7.2ms
 image 369/1368 /content/splits/test/images/003418.jpg: 640x1280 2 cyclists,
 7.0ms
 image 370/1368 /content/splits/test/images/003419.jpg: 640x1280 1 cyclist, 7.2ms
 image 371/1368 /content/splits/test/images/003429.jpg: 640x1280 (no detections),
 7.4ms
 image 372/1368 /content/splits/test/images/003450.jpg: 640x1280 1 cyclist, 7.0ms
 image 373/1368 /content/splits/test/images/003475.jpg: 640x1280 1 cyclist, 7.1ms
 image 374/1368 /content/splits/test/images/003481.jpg: 640x1280 1 cyclist, 7.1ms
 image 375/1368 /content/splits/test/images/003482.jpg: 640x1280 1 cyclist, 7.0ms
 image 376/1368 /content/splits/test/images/003492.jpg: 640x1280 (no detections),
 7.1ms
 image 377/1368 /content/splits/test/images/003497.jpg: 640x1280 3 cyclists,
 24.0ms
 image 378/1368 /content/splits/test/images/003536.jpg: 640x1280 1 cyclist,
 11.9ms
 image 379/1368 /content/splits/test/images/003540.jpg: 640x1280 1 cyclist, 7.3ms
 image 380/1368 /content/splits/test/images/003542.jpg: 640x1280 1 cyclist, 8.3ms
 image 381/1368 /content/splits/test/images/003546.jpg: 640x1280 1 cyclist, 8.7ms
 image 382/1368 /content/splits/test/images/003557.jpg: 640x1280 1 cyclist, 7.8ms
 image 383/1368 /content/splits/test/images/003563.jpg: 640x1280 1 cyclist, 8.1ms
 image 384/1368 /content/splits/test/images/003567.jpg: 640x1280 1 cyclist, 7.6ms
 image 385/1368 /content/splits/test/images/003588.jpg: 640x1280 1 cyclist, 7.1ms
 image 386/1368 /content/splits/test/images/003590.jpg: 640x1280 1 cyclist, 7.2ms
 image 387/1368 /content/splits/test/images/003629.jpg: 640x1280 1 cyclist, 7.4ms
 image 388/1368 /content/splits/test/images/003655.jpg: 640x1280 1 cyclist, 7.5ms
 image 389/1368 /content/splits/test/images/003672.jpg: 640x1280 1 cyclist,
 11.8ms
 image 390/1368 /content/splits/test/images/003674.jpg: 640x1280 2 cyclists,
 29.4ms
 image 391/1368 /content/splits/test/images/003680.jpg: 640x1280 2 cyclists,
 14.4ms
 image 392/1368 /content/splits/test/images/003690.jpg: 640x1280 1 cyclist, 7.3ms
 image 393/1368 /content/splits/test/images/003693.jpg: 640x1280 1 cyclist, 7.1ms
 image 394/1368 /content/splits/test/images/003694.jpg: 640x1280 1 cyclist, 7.1ms
 image 395/1368 /content/splits/test/images/003701.jpg: 640x1280 2 cyclists,
 7.1ms

image 396/1368 /content/splits/test/images/003713.jpg: 640x1280 1 cyclist, 7.2ms
 image 397/1368 /content/splits/test/images/003720.jpg: 640x1280 1 cyclist, 7.0ms
 image 398/1368 /content/splits/test/images/003736.jpg: 640x1280 2 cyclists,
 7.1ms
 image 399/1368 /content/splits/test/images/003745.jpg: 640x1280 2 cyclists,
 7.1ms
 image 400/1368 /content/splits/test/images/003750.jpg: 640x1280 1 cyclist, 7.3ms
 image 401/1368 /content/splits/test/images/003759.jpg: 640x1280 1 cyclist, 7.1ms
 image 402/1368 /content/splits/test/images/003761.jpg: 640x1280 1 cyclist, 7.3ms
 image 403/1368 /content/splits/test/images/003763.jpg: 640x1280 2 cyclists,
 7.2ms
 image 404/1368 /content/splits/test/images/003765.jpg: 640x1280 1 cyclist, 7.1ms
 image 405/1368 /content/splits/test/images/003770.jpg: 640x1280 1 cyclist, 7.0ms
 image 406/1368 /content/splits/test/images/003774.jpg: 640x1280 1 cyclist, 7.1ms
 image 407/1368 /content/splits/test/images/003802.jpg: 640x1280 5 cyclists,
 7.1ms
 image 408/1368 /content/splits/test/images/003808.jpg: 640x1280 2 cyclists,
 8.0ms
 image 409/1368 /content/splits/test/images/003817.jpg: 640x1280 2 cyclists,
 7.2ms
 image 410/1368 /content/splits/test/images/003822.jpg: 640x1280 1 cyclist, 7.3ms
 image 411/1368 /content/splits/test/images/003826.jpg: 640x1280 1 cyclist, 7.0ms
 image 412/1368 /content/splits/test/images/003831.jpg: 640x1280 1 cyclist, 6.9ms
 image 413/1368 /content/splits/test/images/003832.jpg: 640x1280 1 cyclist, 6.9ms
 image 414/1368 /content/splits/test/images/003842.jpg: 640x1280 1 cyclist, 6.9ms
 image 415/1368 /content/splits/test/images/003847.jpg: 640x1280 2 cyclists,
 7.0ms
 image 416/1368 /content/splits/test/images/003861.jpg: 640x1280 1 cyclist, 7.8ms
 image 417/1368 /content/splits/test/images/003862.jpg: 640x1280 1 cyclist,
 25.0ms
 image 418/1368 /content/splits/test/images/003866.jpg: 640x1280 1 cyclist, 7.1ms
 image 419/1368 /content/splits/test/images/003871.jpg: 640x1280 1 cyclist, 7.1ms
 image 420/1368 /content/splits/test/images/003876.jpg: 640x1280 1 cyclist, 7.1ms
 image 421/1368 /content/splits/test/images/003883.jpg: 640x1280 1 cyclist, 7.0ms
 image 422/1368 /content/splits/test/images/003896.jpg: 640x1280 1 cyclist, 7.0ms
 image 423/1368 /content/splits/test/images/003897.jpg: 640x1280 (no detections),
 7.0ms
 image 424/1368 /content/splits/test/images/003898.jpg: 640x1280 1 cyclist, 6.9ms
 image 425/1368 /content/splits/test/images/003914.jpg: 640x1280 1 cyclist, 7.0ms
 image 426/1368 /content/splits/test/images/003916.jpg: 640x1280 1 cyclist, 7.1ms
 image 427/1368 /content/splits/test/images/003931.jpg: 640x1280 1 cyclist, 7.2ms
 image 428/1368 /content/splits/test/images/003941.jpg: 640x1280 1 cyclist, 7.1ms
 image 429/1368 /content/splits/test/images/003944.jpg: 640x1280 1 cyclist, 7.3ms
 image 430/1368 /content/splits/test/images/003953.jpg: 640x1280 1 cyclist, 7.4ms
 image 431/1368 /content/splits/test/images/003988.jpg: 640x1280 2 cyclists,
 30.1ms
 image 432/1368 /content/splits/test/images/003990.jpg: 640x1280 2 cyclists,
 16.6ms

image 433/1368 /content/splits/test/images/004005.jpg: 640x1280 1 cyclist, 7.2ms
image 434/1368 /content/splits/test/images/004024.jpg: 640x1280 (no detections),
7.2ms
image 435/1368 /content/splits/test/images/004041.jpg: 640x1280 (no detections),
7.3ms
image 436/1368 /content/splits/test/images/004044.jpg: 640x1280 (no detections),
7.2ms
image 437/1368 /content/splits/test/images/004058.jpg: 640x1280 (no detections),
7.3ms
image 438/1368 /content/splits/test/images/004065.jpg: 640x1280 (no detections),
7.3ms
image 439/1368 /content/splits/test/images/004066.jpg: 640x1280 (no detections),
7.2ms
image 440/1368 /content/splits/test/images/004073.jpg: 640x1280 (no detections),
7.5ms
image 441/1368 /content/splits/test/images/004080.jpg: 640x1280 1 cyclist, 7.7ms
image 442/1368 /content/splits/test/images/004081.jpg: 640x1280 (no detections),
7.9ms
image 443/1368 /content/splits/test/images/004087.jpg: 640x1280 (no detections),
7.9ms
image 444/1368 /content/splits/test/images/004105.jpg: 640x1280 2 cyclists,
7.6ms
image 445/1368 /content/splits/test/images/004126.jpg: 640x1280 (no detections),
7.6ms
image 446/1368 /content/splits/test/images/004127.jpg: 640x1280 (no detections),
8.9ms
image 447/1368 /content/splits/test/images/004137.jpg: 640x1280 (no detections),
8.3ms
image 448/1368 /content/splits/test/images/004145.jpg: 640x1280 (no detections),
8.0ms
image 449/1368 /content/splits/test/images/004147.jpg: 640x1280 (no detections),
7.5ms
image 450/1368 /content/splits/test/images/004168.jpg: 640x1280 5 cyclists,
7.6ms
image 451/1368 /content/splits/test/images/004174.jpg: 640x1280 6 cyclists,
7.1ms
image 452/1368 /content/splits/test/images/004175.jpg: 640x1280 6 cyclists,
7.1ms
image 453/1368 /content/splits/test/images/004192.jpg: 640x1280 5 cyclists,
7.1ms
image 454/1368 /content/splits/test/images/004214.jpg: 640x1280 1 cyclist, 7.3ms
image 455/1368 /content/splits/test/images/004221.jpg: 640x1280 (no detections),
8.0ms
image 456/1368 /content/splits/test/images/004222.jpg: 640x1280 (no detections),
7.5ms
image 457/1368 /content/splits/test/images/004232.jpg: 640x1280 2 cyclists,
7.8ms
image 458/1368 /content/splits/test/images/004237.jpg: 640x1280 6 cyclists,

7.5ms
 image 459/1368 /content/splits/test/images/004247.jpg: 640x1280 3 cyclists,
 7.6ms
 image 460/1368 /content/splits/test/images/004253.jpg: 640x1280 5 cyclists,
 7.7ms
 image 461/1368 /content/splits/test/images/004262.jpg: 640x1280 8 cyclists,
 7.9ms
 image 462/1368 /content/splits/test/images/004277.jpg: 640x1280 2 cyclists,
 8.1ms
 image 463/1368 /content/splits/test/images/004287.jpg: 640x1280 2 cyclists,
 7.2ms
 image 464/1368 /content/splits/test/images/004295.jpg: 640x1280 2 cyclists,
 7.2ms
 image 465/1368 /content/splits/test/images/004306.jpg: 640x1280 1 cyclist, 7.1ms
 image 466/1368 /content/splits/test/images/004332.jpg: 640x1280 3 cyclists,
 7.3ms
 image 467/1368 /content/splits/test/images/004340.jpg: 640x1280 3 cyclists,
 7.2ms
 image 468/1368 /content/splits/test/images/004365.jpg: 640x1280 1 cyclist, 7.1ms
 image 469/1368 /content/splits/test/images/004386.jpg: 640x1280 (no detections),
 7.1ms
 image 470/1368 /content/splits/test/images/004393.jpg: 640x1280 (no detections),
 7.5ms
 image 471/1368 /content/splits/test/images/004402.jpg: 640x1280 1 cyclist, 7.1ms
 image 472/1368 /content/splits/test/images/004415.jpg: 640x1280 1 cyclist, 7.5ms
 image 473/1368 /content/splits/test/images/004432.jpg: 640x1280 (no detections),
 7.5ms
 image 474/1368 /content/splits/test/images/004436.jpg: 640x1280 (no detections),
 7.7ms
 image 475/1368 /content/splits/test/images/004445.jpg: 640x1280 (no detections),
 7.8ms
 image 476/1368 /content/splits/test/images/004452.jpg: 640x1280 (no detections),
 7.5ms
 image 477/1368 /content/splits/test/images/004453.jpg: 640x1280 (no detections),
 7.5ms
 image 478/1368 /content/splits/test/images/004463.jpg: 640x1280 2 cyclists,
 7.3ms
 image 479/1368 /content/splits/test/images/004477.jpg: 640x1280 2 cyclists,
 7.7ms
 image 480/1368 /content/splits/test/images/004527.jpg: 640x1280 (no detections),
 7.5ms
 image 481/1368 /content/splits/test/images/004547.jpg: 640x1280 (no detections),
 7.6ms
 image 482/1368 /content/splits/test/images/004557.jpg: 640x1280 1 cyclist, 7.4ms
 image 483/1368 /content/splits/test/images/004558.jpg: 640x1280 2 cyclists,
 7.4ms
 image 484/1368 /content/splits/test/images/004563.jpg: 640x1280 1 cyclist, 7.7ms
 image 485/1368 /content/splits/test/images/004578.jpg: 640x1280 3 cyclists,

9.0ms
 image 486/1368 /content/splits/test/images/004579.jpg: 640x1280 3 cyclists,
 7.3ms
 image 487/1368 /content/splits/test/images/004588.jpg: 640x1280 3 cyclists,
 7.1ms
 image 488/1368 /content/splits/test/images/004598.jpg: 640x1280 4 cyclists,
 7.0ms
 image 489/1368 /content/splits/test/images/004602.jpg: 640x1280 2 cyclists,
 7.1ms
 image 490/1368 /content/splits/test/images/004604.jpg: 640x1280 1 cyclist, 7.2ms
 image 491/1368 /content/splits/test/images/004606.jpg: 640x1280 1 cyclist, 7.0ms
 image 492/1368 /content/splits/test/images/004615.jpg: 640x1280 1 cyclist, 7.2ms
 image 493/1368 /content/splits/test/images/004630.jpg: 640x1280 1 cyclist, 7.1ms
 image 494/1368 /content/splits/test/images/004650.jpg: 640x1280 (no detections),
 7.0ms
 image 495/1368 /content/splits/test/images/004661.jpg: 640x1280 (no detections),
 7.1ms
 image 496/1368 /content/splits/test/images/004666.jpg: 640x1280 (no detections),
 7.1ms
 image 497/1368 /content/splits/test/images/004705.jpg: 640x1280 (no detections),
 7.4ms
 image 498/1368 /content/splits/test/images/004716.jpg: 640x1280 1 cyclist, 7.9ms
 image 499/1368 /content/splits/test/images/004725.jpg: 640x1280 1 cyclist, 7.9ms
 image 500/1368 /content/splits/test/images/004726.jpg: 640x1280 1 cyclist, 7.0ms
 image 501/1368 /content/splits/test/images/004735.jpg: 640x1280 1 cyclist, 7.7ms
 image 502/1368 /content/splits/test/images/004739.jpg: 640x1280 1 cyclist, 7.0ms
 image 503/1368 /content/splits/test/images/004757.jpg: 640x1280 1 cyclist, 7.2ms
 image 504/1368 /content/splits/test/images/004786.jpg: 640x1280 (no detections),
 7.3ms
 image 505/1368 /content/splits/test/images/004813.jpg: 640x1280 2 cyclists,
 6.9ms
 image 506/1368 /content/splits/test/images/004826.jpg: 640x1280 2 cyclists,
 7.0ms
 image 507/1368 /content/splits/test/images/004833.jpg: 640x1280 1 cyclist, 7.0ms
 image 508/1368 /content/splits/test/images/004836.jpg: 640x1280 1 cyclist, 7.0ms
 image 509/1368 /content/splits/test/images/004840.jpg: 640x1280 1 cyclist, 6.9ms
 image 510/1368 /content/splits/test/images/004851.jpg: 640x1280 1 cyclist, 7.0ms
 image 511/1368 /content/splits/test/images/004854.jpg: 640x1280 1 cyclist, 7.1ms
 image 512/1368 /content/splits/test/images/004864.jpg: 640x1280 (no detections),
 7.1ms
 image 513/1368 /content/splits/test/images/004865.jpg: 640x1280 (no detections),
 7.0ms
 image 514/1368 /content/splits/test/images/004898.jpg: 640x1280 2 cyclists,
 7.1ms
 image 515/1368 /content/splits/test/images/004904.jpg: 640x1280 4 cyclists,
 7.1ms
 image 516/1368 /content/splits/test/images/004911.jpg: 640x1280 3 cyclists,
 7.1ms

image 517/1368 /content/splits/test/images/004935.jpg: 640x1280 4 cyclists,
 7.1ms
 image 518/1368 /content/splits/test/images/004946.jpg: 640x1280 1 cyclist, 7.1ms
 image 519/1368 /content/splits/test/images/004958.jpg: 640x1280 (no detections),
 7.0ms
 image 520/1368 /content/splits/test/images/004990.jpg: 640x1280 1 cyclist, 6.9ms
 image 521/1368 /content/splits/test/images/004994.jpg: 640x1280 1 cyclist, 7.4ms
 image 522/1368 /content/splits/test/images/005029.jpg: 640x1280 (no detections),
 17.7ms
 image 523/1368 /content/splits/test/images/005047.jpg: 640x1280 1 cyclist, 8.2ms
 image 524/1368 /content/splits/test/images/005057.jpg: 640x1280 (no detections),
 7.5ms
 image 525/1368 /content/splits/test/images/005060.jpg: 640x1280 (no detections),
 7.9ms
 image 526/1368 /content/splits/test/images/005061.jpg: 640x1280 (no detections),
 7.2ms
 image 527/1368 /content/splits/test/images/005091.jpg: 640x1280 1 cyclist, 9.0ms
 image 528/1368 /content/splits/test/images/005107.jpg: 640x1280 (no detections),
 7.0ms
 image 529/1368 /content/splits/test/images/005128.jpg: 640x1280 (no detections),
 7.2ms
 image 530/1368 /content/splits/test/images/005132.jpg: 640x1280 (no detections),
 7.3ms
 image 531/1368 /content/splits/test/images/005137.jpg: 640x1280 (no detections),
 7.1ms
 image 532/1368 /content/splits/test/images/005179.jpg: 640x1280 1 cyclist, 7.0ms
 image 533/1368 /content/splits/test/images/005180.jpg: 640x1280 1 cyclist, 7.1ms
 image 534/1368 /content/splits/test/images/005182.jpg: 640x1280 1 cyclist, 7.0ms
 image 535/1368 /content/splits/test/images/005184.jpg: 640x1280 1 cyclist, 7.5ms
 image 536/1368 /content/splits/test/images/005189.jpg: 640x1280 (no detections),
 7.1ms
 image 537/1368 /content/splits/test/images/005202.jpg: 640x1280 (no detections),
 7.1ms
 image 538/1368 /content/splits/test/images/005216.jpg: 640x1280 (no detections),
 7.1ms
 image 539/1368 /content/splits/test/images/005223.jpg: 640x1280 1 cyclist, 7.0ms
 image 540/1368 /content/splits/test/images/005224.jpg: 640x1280 1 cyclist, 7.0ms
 image 541/1368 /content/splits/test/images/005229.jpg: 640x1280 2 cyclists,
 7.0ms
 image 542/1368 /content/splits/test/images/005231.jpg: 640x1280 (no detections),
 7.1ms
 image 543/1368 /content/splits/test/images/005232.jpg: 640x1280 (no detections),
 7.2ms
 image 544/1368 /content/splits/test/images/005244.jpg: 640x1280 6 cyclists,
 7.1ms
 image 545/1368 /content/splits/test/images/005248.jpg: 640x1280 7 cyclists,
 7.0ms
 image 546/1368 /content/splits/test/images/005266.jpg: 640x1280 5 cyclists,

7.1ms
 image 547/1368 /content/splits/test/images/005273.jpg: 640x1280 2 cyclists,
 7.0ms
 image 548/1368 /content/splits/test/images/005279.jpg: 640x1280 5 cyclists,
 7.0ms
 image 549/1368 /content/splits/test/images/005280.jpg: 640x1280 5 cyclists,
 7.2ms
 image 550/1368 /content/splits/test/images/005289.jpg: 640x1280 4 cyclists,
 9.7ms
 image 551/1368 /content/splits/test/images/005314.jpg: 640x1280 1 cyclist, 7.5ms
 image 552/1368 /content/splits/test/images/005317.jpg: 640x1280 1 cyclist, 7.5ms
 image 553/1368 /content/splits/test/images/005336.jpg: 640x1280 2 cyclists,
 7.3ms
 image 554/1368 /content/splits/test/images/005386.jpg: 640x1280 4 cyclists,
 7.1ms
 image 555/1368 /content/splits/test/images/005391.jpg: 640x1280 4 cyclists,
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 image 556/1368 /content/splits/test/images/005398.jpg: 640x1280 6 cyclists,
 7.1ms
 image 557/1368 /content/splits/test/images/005407.jpg: 640x1280 4 cyclists,
 7.0ms
 image 558/1368 /content/splits/test/images/005411.jpg: 640x1280 4 cyclists,
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 image 559/1368 /content/splits/test/images/005413.jpg: 640x1280 3 cyclists,
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 image 562/1368 /content/splits/test/images/005489.jpg: 640x1280 4 cyclists,
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 image 563/1368 /content/splits/test/images/005505.jpg: 640x1280 2 cyclists,
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 image 564/1368 /content/splits/test/images/005511.jpg: 640x1280 2 cyclists,
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 image 565/1368 /content/splits/test/images/005512.jpg: 640x1280 2 cyclists,
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 image 566/1368 /content/splits/test/images/005514.jpg: 640x1280 2 cyclists,
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 image 567/1368 /content/splits/test/images/005519.jpg: 640x1280 2 cyclists,
 7.2ms
 image 568/1368 /content/splits/test/images/005525.jpg: 640x1280 3 cyclists,
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 image 569/1368 /content/splits/test/images/005540.jpg: 640x1280 3 cyclists,
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 image 570/1368 /content/splits/test/images/005541.jpg: 640x1280 3 cyclists,
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 image 571/1368 /content/splits/test/images/005549.jpg: 640x1280 3 cyclists,

7.3ms
 image 572/1368 /content/splits/test/images/005561.jpg: 640x1280 3 cyclists,
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 image 573/1368 /content/splits/test/images/005571.jpg: 640x1280 3 cyclists,
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 image 574/1368 /content/splits/test/images/005572.jpg: 640x1280 4 cyclists,
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 7.1ms
 image 578/1368 /content/splits/test/images/005599.jpg: 640x1280 4 cyclists,
 7.6ms
 image 579/1368 /content/splits/test/images/005604.jpg: 640x1280 5 cyclists,
 6.9ms
 image 580/1368 /content/splits/test/images/005612.jpg: 640x1280 6 cyclists,
 7.3ms
 image 581/1368 /content/splits/test/images/005613.jpg: 640x1280 8 cyclists,
 7.2ms
 image 582/1368 /content/splits/test/images/005617.jpg: 640x1280 9 cyclists,
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 image 583/1368 /content/splits/test/images/005628.jpg: 640x1280 1 cyclist, 7.1ms
 image 584/1368 /content/splits/test/images/005635.jpg: 640x1280 2 cyclists,
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 image 586/1368 /content/splits/test/images/005642.jpg: 640x1280 3 cyclists,
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 image 593/1368 /content/splits/test/images/005727.jpg: 640x1280 1 cyclist, 7.2ms
 image 594/1368 /content/splits/test/images/005747.jpg: 640x1280 1 cyclist, 7.7ms
 image 595/1368 /content/splits/test/images/005752.jpg: 640x1280 1 cyclist, 7.4ms
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 image 598/1368 /content/splits/test/images/005768.jpg: 640x1280 1 cyclist, 7.2ms
 image 599/1368 /content/splits/test/images/005769.jpg: 640x1280 1 cyclist, 8.5ms
 image 600/1368 /content/splits/test/images/005789.jpg: 640x1280 1 cyclist, 7.2ms
 image 601/1368 /content/splits/test/images/005796.jpg: 640x1280 1 cyclist, 7.0ms

image 602/1368 /content/splits/test/images/005799.jpg: 640x1280 1 cyclist, 8.9ms
 image 603/1368 /content/splits/test/images/005804.jpg: 640x1280 1 cyclist, 7.1ms
 image 604/1368 /content/splits/test/images/005807.jpg: 640x1280 1 cyclist, 7.1ms
 image 605/1368 /content/splits/test/images/005817.jpg: 640x1280 1 cyclist, 7.3ms
 image 606/1368 /content/splits/test/images/005823.jpg: 640x1280 2 cyclists,
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 image 607/1368 /content/splits/test/images/005834.jpg: 640x1280 1 cyclist, 7.1ms
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 image 609/1368 /content/splits/test/images/005841.jpg: 640x1280 1 cyclist, 6.9ms
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 image 616/1368 /content/splits/test/images/005891.jpg: 640x1280 1 cyclist, 7.0ms
 image 617/1368 /content/splits/test/images/005896.jpg: 640x1280 1 cyclist, 7.5ms
 image 618/1368 /content/splits/test/images/005898.jpg: 640x1280 1 cyclist, 7.0ms
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 image 621/1368 /content/splits/test/images/005929.jpg: 640x1280 1 cyclist, 7.1ms
 image 622/1368 /content/splits/test/images/005953.jpg: 640x1280 2 cyclists,
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 image 623/1368 /content/splits/test/images/005959.jpg: 640x1280 1 cyclist, 7.0ms
 image 624/1368 /content/splits/test/images/005964.jpg: 640x1280 1 cyclist, 7.1ms
 image 625/1368 /content/splits/test/images/005974.jpg: 640x1280 1 cyclist, 7.3ms
 image 626/1368 /content/splits/test/images/005982.jpg: 640x1280 1 cyclist, 7.2ms
 image 627/1368 /content/splits/test/images/005983.jpg: 640x1280 1 cyclist, 7.0ms
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 image 631/1368 /content/splits/test/images/006012.jpg: 640x1280 1 cyclist, 7.1ms
 image 632/1368 /content/splits/test/images/006024.jpg: 640x1280 1 cyclist, 7.3ms
 image 633/1368 /content/splits/test/images/006025.jpg: 640x1280 1 cyclist, 7.1ms
 image 634/1368 /content/splits/test/images/006060.jpg: 640x1280 1 cyclist, 7.1ms
 image 635/1368 /content/splits/test/images/006061.jpg: 640x1280 1 cyclist, 7.0ms
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 image 639/1368 /content/splits/test/images/006091.jpg: 640x1280 1 cyclist, 7.2ms
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 image 644/1368 /content/splits/test/images/006143.jpg: 640x1280 1 cyclist, 7.1ms
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 image 649/1368 /content/splits/test/images/006235.jpg: 640x1280 1 cyclist, 7.3ms
 image 650/1368 /content/splits/test/images/006239.jpg: 640x1280 1 cyclist, 7.2ms
 image 651/1368 /content/splits/test/images/006241.jpg: 640x1280 1 cyclist, 7.3ms
 image 652/1368 /content/splits/test/images/006243.jpg: 640x1280 1 cyclist, 7.1ms
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 image 654/1368 /content/splits/test/images/006257.jpg: 640x1280 1 cyclist, 7.2ms
 image 655/1368 /content/splits/test/images/006258.jpg: 640x1280 1 cyclist, 7.1ms
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 image 666/1368 /content/splits/test/images/006340.jpg: 640x1280 1 cyclist, 6.9ms
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 image 668/1368 /content/splits/test/images/006349.jpg: 640x1280 1 cyclist, 7.1ms
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 image 675/1368 /content/splits/test/images/006472.jpg: 640x1280 1 cyclist, 7.3ms
 image 676/1368 /content/splits/test/images/006473.jpg: 640x1280 1 cyclist, 7.2ms
 image 677/1368 /content/splits/test/images/006477.jpg: 640x1280 (no detections),
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 image 711/1368 /content/splits/test/images/006813.jpg: 640x1280 1 cyclist, 7.9ms
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 image 736/1368 /content/splits/test/images/007123.jpg: 640x1280 1 cyclist, 7.2ms
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 image 742/1368 /content/splits/test/images/007202.jpg: 640x1280 2 cyclists,
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 image 743/1368 /content/splits/test/images/007233.jpg: 640x1280 1 cyclist, 7.2ms
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 image 779/1368 /content/splits/test/images/007730.jpg: 640x1280 1 cyclist, 7.3ms
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 7.2ms
 image 783/1368 /content/splits/test/images/007778.jpg: 640x1280 4 cyclists,
 7.0ms
 image 784/1368 /content/splits/test/images/007783.jpg: 640x1280 1 cyclist, 7.2ms
 image 785/1368 /content/splits/test/images/007808.jpg: 640x1280 1 cyclist, 7.5ms
 image 786/1368 /content/splits/test/images/007822.jpg: 640x1280 1 cyclist, 7.5ms
 image 787/1368 /content/splits/test/images/007825.jpg: 640x1280 1 cyclist, 7.4ms
 image 788/1368 /content/splits/test/images/007827.jpg: 640x1280 1 cyclist, 7.4ms
 image 789/1368 /content/splits/test/images/007831.jpg: 640x1280 2 cyclists,
 7.8ms
 image 790/1368 /content/splits/test/images/007843.jpg: 640x1280 1 cyclist, 7.3ms
 image 791/1368 /content/splits/test/images/007845.jpg: 640x1280 1 cyclist, 7.1ms
 image 792/1368 /content/splits/test/images/007851.jpg: 640x1280 1 cyclist, 7.0ms
 image 793/1368 /content/splits/test/images/007860.jpg: 640x1280 1 cyclist, 7.1ms
 image 794/1368 /content/splits/test/images/007876.jpg: 640x1280 1 cyclist, 7.3ms
 image 795/1368 /content/splits/test/images/007887.jpg: 640x1280 1 cyclist, 7.1ms
 image 796/1368 /content/splits/test/images/007891.jpg: 640x1280 1 cyclist, 7.2ms
 image 797/1368 /content/splits/test/images/007908.jpg: 640x1280 1 cyclist, 7.2ms
 image 798/1368 /content/splits/test/images/007909.jpg: 640x1280 1 cyclist, 7.3ms
 image 799/1368 /content/splits/test/images/007911.jpg: 640x1280 1 cyclist, 7.0ms
 image 800/1368 /content/splits/test/images/007915.jpg: 640x1280 1 cyclist, 7.1ms
 image 801/1368 /content/splits/test/images/007921.jpg: 640x1280 1 cyclist, 7.2ms
 image 802/1368 /content/splits/test/images/007964.jpg: 640x1280 2 cyclists,
 7.2ms
 image 803/1368 /content/splits/test/images/007975.jpg: 640x1280 1 cyclist, 8.7ms
 image 804/1368 /content/splits/test/images/007998.jpg: 640x1280 1 cyclist, 7.2ms
 image 805/1368 /content/splits/test/images/008002.jpg: 640x1280 1 cyclist, 7.3ms
 image 806/1368 /content/splits/test/images/008023.jpg: 640x1280 1 cyclist, 7.2ms
 image 807/1368 /content/splits/test/images/008027.jpg: 640x1280 1 cyclist, 9.0ms
 image 808/1368 /content/splits/test/images/008033.jpg: 640x1280 1 cyclist, 7.2ms
 image 809/1368 /content/splits/test/images/008034.jpg: 640x1280 1 cyclist, 7.2ms
 image 810/1368 /content/splits/test/images/008036.jpg: 640x1280 1 cyclist, 7.2ms
 image 811/1368 /content/splits/test/images/008038.jpg: 640x1280 1 cyclist, 7.1ms
 image 812/1368 /content/splits/test/images/008040.jpg: 640x1280 1 cyclist, 7.1ms
 image 813/1368 /content/splits/test/images/008042.jpg: 640x1280 1 cyclist, 7.4ms
 image 814/1368 /content/splits/test/images/008055.jpg: 640x1280 1 cyclist, 7.3ms
 image 815/1368 /content/splits/test/images/008058.jpg: 640x1280 1 cyclist, 7.2ms
 image 816/1368 /content/splits/test/images/008067.jpg: 640x1280 1 cyclist, 7.1ms
 image 817/1368 /content/splits/test/images/008083.jpg: 640x1280 2 cyclists,
 7.4ms

image 818/1368 /content/splits/test/images/008084.jpg: 640x1280 2 cyclists,
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 image 819/1368 /content/splits/test/images/008089.jpg: 640x1280 2 cyclists,
 7.1ms
 image 820/1368 /content/splits/test/images/008094.jpg: 640x1280 2 cyclists,
 7.1ms
 image 821/1368 /content/splits/test/images/008100.jpg: 640x1280 2 cyclists,
 7.6ms
 image 822/1368 /content/splits/test/images/008101.jpg: 640x1280 1 cyclist, 7.4ms
 image 823/1368 /content/splits/test/images/008137.jpg: 640x1280 1 cyclist, 7.2ms
 image 824/1368 /content/splits/test/images/008142.jpg: 640x1280 1 cyclist, 7.1ms
 image 825/1368 /content/splits/test/images/008168.jpg: 640x1280 1 cyclist, 7.3ms
 image 826/1368 /content/splits/test/images/008170.jpg: 640x1280 1 cyclist, 7.2ms
 image 827/1368 /content/splits/test/images/008176.jpg: 640x1280 1 cyclist, 7.1ms
 image 828/1368 /content/splits/test/images/008180.jpg: 640x1280 1 cyclist, 7.0ms
 image 829/1368 /content/splits/test/images/008184.jpg: 640x1280 1 cyclist, 7.4ms
 image 830/1368 /content/splits/test/images/008186.jpg: 640x1280 1 cyclist, 7.1ms
 image 831/1368 /content/splits/test/images/008191.jpg: 640x1280 1 cyclist, 6.9ms
 image 832/1368 /content/splits/test/images/008205.jpg: 640x1280 1 cyclist, 7.3ms
 image 833/1368 /content/splits/test/images/008216.jpg: 640x1280 1 cyclist, 7.0ms
 image 834/1368 /content/splits/test/images/008219.jpg: 640x1280 1 cyclist, 7.0ms
 image 835/1368 /content/splits/test/images/008220.jpg: 640x1280 1 cyclist, 7.1ms
 image 836/1368 /content/splits/test/images/008231.jpg: 640x1280 1 cyclist, 7.2ms
 image 837/1368 /content/splits/test/images/008266.jpg: 640x1280 1 cyclist, 7.3ms
 image 838/1368 /content/splits/test/images/008271.jpg: 640x1280 1 cyclist, 7.1ms
 image 839/1368 /content/splits/test/images/008272.jpg: 640x1280 1 cyclist, 7.0ms
 image 840/1368 /content/splits/test/images/008274.jpg: 640x1280 1 cyclist, 7.1ms
 image 841/1368 /content/splits/test/images/008284.jpg: 640x1280 2 cyclists,
 8.0ms
 image 842/1368 /content/splits/test/images/008290.jpg: 640x1280 3 cyclists,
 7.9ms
 image 843/1368 /content/splits/test/images/008315.jpg: 640x1280 2 cyclists,
 7.3ms
 image 844/1368 /content/splits/test/images/008326.jpg: 640x1280 1 cyclist, 7.3ms
 image 845/1368 /content/splits/test/images/008367.jpg: 640x1280 1 cyclist, 8.8ms
 image 846/1368 /content/splits/test/images/008371.jpg: 640x1280 2 cyclists,
 7.8ms
 image 847/1368 /content/splits/test/images/008378.jpg: 640x1280 1 cyclist, 7.1ms
 image 848/1368 /content/splits/test/images/008379.jpg: 640x1280 2 cyclists,
 7.2ms
 image 849/1368 /content/splits/test/images/008390.jpg: 640x1280 1 cyclist, 7.2ms
 image 850/1368 /content/splits/test/images/008402.jpg: 640x1280 2 cyclists,
 7.1ms
 image 851/1368 /content/splits/test/images/008410.jpg: 640x1280 1 cyclist, 7.3ms
 image 852/1368 /content/splits/test/images/008421.jpg: 640x1280 3 cyclists,
 7.1ms
 image 853/1368 /content/splits/test/images/008424.jpg: 640x1280 3 cyclists,
 7.3ms

image 854/1368 /content/splits/test/images/008428.jpg: 640x1280 2 cyclists,
 7.1ms
 image 855/1368 /content/splits/test/images/008439.jpg: 640x1280 2 cyclists,
 7.2ms
 image 856/1368 /content/splits/test/images/008451.jpg: 640x1280 3 cyclists,
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 image 857/1368 /content/splits/test/images/008454.jpg: 640x1280 2 cyclists,
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 image 858/1368 /content/splits/test/images/008459.jpg: 640x1280 1 cyclist, 7.1ms
 image 859/1368 /content/splits/test/images/008461.jpg: 640x1280 1 cyclist,
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 image 860/1368 /content/splits/test/images/008462.jpg: 640x1280 1 cyclist, 8.6ms
 image 861/1368 /content/splits/test/images/008463.jpg: 640x1280 1 cyclist, 7.5ms
 image 862/1368 /content/splits/test/images/008485.jpg: 640x1280 2 cyclists,
 7.3ms
 image 863/1368 /content/splits/test/images/008495.jpg: 640x1280 1 cyclist, 7.1ms
 image 864/1368 /content/splits/test/images/008499.jpg: 640x1280 1 cyclist, 7.2ms
 image 865/1368 /content/splits/test/images/008515.jpg: 640x1280 1 cyclist, 7.2ms
 image 866/1368 /content/splits/test/images/008522.jpg: 640x1280 2 cyclists,
 7.5ms
 image 867/1368 /content/splits/test/images/008535.jpg: 640x1280 1 cyclist, 7.5ms
 image 868/1368 /content/splits/test/images/008548.jpg: 640x1280 1 cyclist, 8.1ms
 image 869/1368 /content/splits/test/images/008555.jpg: 640x1280 2 cyclists,
 8.3ms
 image 870/1368 /content/splits/test/images/008557.jpg: 640x1280 2 cyclists,
 8.0ms
 image 871/1368 /content/splits/test/images/008562.jpg: 640x1280 2 cyclists,
 7.5ms
 image 872/1368 /content/splits/test/images/008573.jpg: 640x1280 2 cyclists,
 7.4ms
 image 873/1368 /content/splits/test/images/008580.jpg: 640x1280 1 cyclist, 7.2ms
 image 874/1368 /content/splits/test/images/008583.jpg: 640x1280 2 cyclists,
 6.9ms
 image 875/1368 /content/splits/test/images/008585.jpg: 640x1280 2 cyclists,
 7.0ms
 image 876/1368 /content/splits/test/images/008600.jpg: 640x1280 1 cyclist, 7.3ms
 image 877/1368 /content/splits/test/images/008601.jpg: 640x1280 3 cyclists,
 8.1ms
 image 878/1368 /content/splits/test/images/008609.jpg: 640x1280 1 cyclist, 7.1ms
 image 879/1368 /content/splits/test/images/008610.jpg: 640x1280 1 cyclist, 7.1ms
 image 880/1368 /content/splits/test/images/008613.jpg: 640x1280 1 cyclist, 7.4ms
 image 881/1368 /content/splits/test/images/008625.jpg: 640x1280 1 cyclist, 7.1ms
 image 882/1368 /content/splits/test/images/008626.jpg: 640x1280 1 cyclist, 7.6ms
 image 883/1368 /content/splits/test/images/008640.jpg: 640x1280 1 cyclist, 7.7ms
 image 884/1368 /content/splits/test/images/008641.jpg: 640x1280 (no detections),
 7.5ms
 image 885/1368 /content/splits/test/images/008645.jpg: 640x1280 1 cyclist, 7.6ms
 image 886/1368 /content/splits/test/images/008664.jpg: 640x1280 2 cyclists,

9.7ms
 image 887/1368 /content/splits/test/images/008666.jpg: 640x1280 3 cyclists,
 9.3ms
 image 888/1368 /content/splits/test/images/008674.jpg: 640x1280 1 cyclist, 7.7ms
 image 889/1368 /content/splits/test/images/008681.jpg: 640x1280 1 cyclist, 7.2ms
 image 890/1368 /content/splits/test/images/008684.jpg: 640x1280 2 cyclists,
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 image 891/1368 /content/splits/test/images/008689.jpg: 640x1280 2 cyclists,
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 image 892/1368 /content/splits/test/images/008690.jpg: 640x1280 2 cyclists,
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 image 894/1368 /content/splits/test/images/008702.jpg: 640x1280 2 cyclists,
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 image 895/1368 /content/splits/test/images/008708.jpg: 640x1280 2 cyclists,
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 image 896/1368 /content/splits/test/images/008741.jpg: 640x1280 1 cyclist, 7.1ms
 image 897/1368 /content/splits/test/images/008746.jpg: 640x1280 1 cyclist, 7.6ms
 image 898/1368 /content/splits/test/images/008748.jpg: 640x1280 1 cyclist,
 11.0ms
 image 899/1368 /content/splits/test/images/008749.jpg: 640x1280 1 cyclist, 8.0ms
 image 900/1368 /content/splits/test/images/008751.jpg: 640x1280 (no detections),
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 image 901/1368 /content/splits/test/images/008786.jpg: 640x1280 4 cyclists,
 11.0ms
 image 902/1368 /content/splits/test/images/008795.jpg: 640x1280 2 cyclists,
 8.4ms
 image 903/1368 /content/splits/test/images/008798.jpg: 640x1280 2 cyclists,
 9.9ms
 image 904/1368 /content/splits/test/images/008804.jpg: 640x1280 3 cyclists,
 8.4ms
 image 905/1368 /content/splits/test/images/008806.jpg: 640x1280 3 cyclists,
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 image 906/1368 /content/splits/test/images/008827.jpg: 640x1280 2 cyclists,
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 image 907/1368 /content/splits/test/images/008838.jpg: 640x1280 3 cyclists,
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 image 908/1368 /content/splits/test/images/008843.jpg: 640x1280 3 cyclists,
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 image 909/1368 /content/splits/test/images/008847.jpg: 640x1280 3 cyclists,
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 image 910/1368 /content/splits/test/images/008864.jpg: 640x1280 3 cyclists,
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 image 911/1368 /content/splits/test/images/008881.jpg: 640x1280 3 cyclists,
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 image 912/1368 /content/splits/test/images/008887.jpg: 640x1280 3 cyclists,
 12.0ms

image 913/1368 /content/splits/test/images/008894.jpg: 640x1280 2 cyclists,
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 image 914/1368 /content/splits/test/images/008927.jpg: 640x1280 2 cyclists,
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 image 915/1368 /content/splits/test/images/008933.jpg: 640x1280 2 cyclists,
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 image 916/1368 /content/splits/test/images/008935.jpg: 640x1280 2 cyclists,
 7.4ms
 image 917/1368 /content/splits/test/images/008948.jpg: 640x1280 1 cyclist, 7.4ms
 image 918/1368 /content/splits/test/images/008959.jpg: 640x1280 1 cyclist, 7.9ms
 image 919/1368 /content/splits/test/images/008969.jpg: 640x1280 1 cyclist, 7.4ms
 image 920/1368 /content/splits/test/images/008970.jpg: 640x1280 1 cyclist, 7.4ms
 image 921/1368 /content/splits/test/images/008980.jpg: 640x1280 1 cyclist, 7.4ms
 image 922/1368 /content/splits/test/images/008999.jpg: 640x1280 1 cyclist, 7.5ms
 image 923/1368 /content/splits/test/images/009012.jpg: 640x1280 1 cyclist, 7.3ms
 image 924/1368 /content/splits/test/images/009027.jpg: 640x1280 1 cyclist, 7.4ms
 image 925/1368 /content/splits/test/images/009050.jpg: 640x1280 1 cyclist, 7.4ms
 image 926/1368 /content/splits/test/images/009067.jpg: 640x1280 1 cyclist, 7.4ms
 image 927/1368 /content/splits/test/images/009077.jpg: 640x1280 1 cyclist, 7.5ms
 image 928/1368 /content/splits/test/images/009086.jpg: 640x1280 1 cyclist, 7.4ms
 image 929/1368 /content/splits/test/images/009099.jpg: 640x1280 1 cyclist, 7.4ms
 image 930/1368 /content/splits/test/images/009103.jpg: 640x1280 1 cyclist, 7.5ms
 image 931/1368 /content/splits/test/images/009123.jpg: 640x1280 1 cyclist, 7.6ms
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 image 933/1368 /content/splits/test/images/009188.jpg: 640x1280 2 cyclists,
 7.3ms
 image 934/1368 /content/splits/test/images/009191.jpg: 640x1280 1 cyclist, 7.6ms
 image 935/1368 /content/splits/test/images/009196.jpg: 640x1280 1 cyclist, 7.7ms
 image 936/1368 /content/splits/test/images/009200.jpg: 640x1280 1 cyclist, 7.3ms
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 image 939/1368 /content/splits/test/images/009239.jpg: 640x1280 1 cyclist, 7.3ms
 image 940/1368 /content/splits/test/images/009246.jpg: 640x1280 1 cyclist, 7.3ms
 image 941/1368 /content/splits/test/images/009248.jpg: 640x1280 1 cyclist, 7.4ms
 image 942/1368 /content/splits/test/images/009269.jpg: 640x1280 1 cyclist, 7.4ms
 image 943/1368 /content/splits/test/images/009279.jpg: 640x1280 2 cyclists,
 7.4ms
 image 944/1368 /content/splits/test/images/009290.jpg: 640x1280 1 cyclist, 8.1ms
 image 945/1368 /content/splits/test/images/009333.jpg: 640x1280 2 cyclists,
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 image 946/1368 /content/splits/test/images/009344.jpg: 640x1280 2 cyclists,
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 image 947/1368 /content/splits/test/images/009356.jpg: 640x1280 2 cyclists,
 7.3ms
 image 948/1368 /content/splits/test/images/009358.jpg: 640x1280 1 cyclist, 7.3ms
 image 949/1368 /content/splits/test/images/009360.jpg: 640x1280 1 cyclist, 7.9ms
 image 950/1368 /content/splits/test/images/009371.jpg: 640x1280 2 cyclists,

7.3ms
image 951/1368 /content/splits/test/images/009377.jpg: 640x1280 1 cyclist, 7.5ms
image 952/1368 /content/splits/test/images/009391.jpg: 640x1280 2 cyclists,
7.5ms
image 953/1368 /content/splits/test/images/009397.jpg: 640x1280 1 cyclist, 7.3ms
image 954/1368 /content/splits/test/images/009401.jpg: 640x1280 1 cyclist, 7.3ms
image 955/1368 /content/splits/test/images/009416.jpg: 640x1280 4 cyclists,
7.6ms
image 956/1368 /content/splits/test/images/009422.jpg: 640x1280 3 cyclists,
7.6ms
image 957/1368 /content/splits/test/images/009425.jpg: 640x1280 3 cyclists,
7.8ms
image 958/1368 /content/splits/test/images/009427.jpg: 640x1280 3 cyclists,
7.9ms
image 959/1368 /content/splits/test/images/009438.jpg: 640x1280 4 cyclists,
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image 960/1368 /content/splits/test/images/009444.jpg: 640x1280 4 cyclists,
7.7ms
image 961/1368 /content/splits/test/images/009448.jpg: 640x1280 3 cyclists,
7.6ms
image 962/1368 /content/splits/test/images/009452.jpg: 640x1280 3 cyclists,
7.5ms
image 963/1368 /content/splits/test/images/009467.jpg: 640x1280 2 cyclists,
7.5ms
image 964/1368 /content/splits/test/images/009501.jpg: 640x1280 1 cyclist, 7.4ms
image 965/1368 /content/splits/test/images/009503.jpg: 640x1280 1 cyclist, 7.3ms
image 966/1368 /content/splits/test/images/009510.jpg: 640x1280 1 cyclist, 7.7ms
image 967/1368 /content/splits/test/images/009519.jpg: 640x1280 1 cyclist, 7.6ms
image 968/1368 /content/splits/test/images/009533.jpg: 640x1280 1 cyclist, 7.5ms
image 969/1368 /content/splits/test/images/009553.jpg: 640x1280 1 cyclist, 7.8ms
image 970/1368 /content/splits/test/images/009563.jpg: 640x1280 1 cyclist, 7.7ms
image 971/1368 /content/splits/test/images/009605.jpg: 640x1280 1 cyclist, 7.5ms
image 972/1368 /content/splits/test/images/009618.jpg: 640x1280 1 cyclist, 7.4ms
image 973/1368 /content/splits/test/images/009647.jpg: 640x1280 2 cyclists,
7.6ms
image 974/1368 /content/splits/test/images/009661.jpg: 640x1280 1 cyclist, 7.3ms
image 975/1368 /content/splits/test/images/009673.jpg: 640x1280 3 cyclists,
7.5ms
image 976/1368 /content/splits/test/images/009681.jpg: 640x1280 3 cyclists,
7.3ms
image 977/1368 /content/splits/test/images/009688.jpg: 640x1280 3 cyclists,
7.4ms
image 978/1368 /content/splits/test/images/009695.jpg: 640x1280 1 cyclist, 7.3ms
image 979/1368 /content/splits/test/images/009699.jpg: 640x1280 1 cyclist, 7.5ms
image 980/1368 /content/splits/test/images/009705.jpg: 640x1280 1 cyclist, 9.4ms
image 981/1368 /content/splits/test/images/009708.jpg: 640x1280 1 cyclist, 7.4ms
image 982/1368 /content/splits/test/images/009723.jpg: 640x1280 1 cyclist, 8.3ms
image 983/1368 /content/splits/test/images/009724.jpg: 640x1280 1 cyclist, 7.3ms

image 984/1368 /content/splits/test/images/009729.jpg: 640x1280 1 cyclist, 7.4ms
 image 985/1368 /content/splits/test/images/009769.jpg: 640x1280 1 cyclist, 7.5ms
 image 986/1368 /content/splits/test/images/009787.jpg: 640x1280 3 cyclists,
 11.1ms
 image 987/1368 /content/splits/test/images/009796.jpg: 640x1280 2 cyclists,
 7.2ms
 image 988/1368 /content/splits/test/images/009797.jpg: 640x1280 2 cyclists,
 7.2ms
 image 989/1368 /content/splits/test/images/009801.jpg: 640x1280 3 cyclists,
 7.5ms
 image 990/1368 /content/splits/test/images/009802.jpg: 640x1280 3 cyclists,
 7.3ms
 image 991/1368 /content/splits/test/images/009819.jpg: 640x1280 1 cyclist, 8.1ms
 image 992/1368 /content/splits/test/images/009831.jpg: 640x1280 1 cyclist, 7.3ms
 image 993/1368 /content/splits/test/images/009838.jpg: 640x1280 2 cyclists,
 7.4ms
 image 994/1368 /content/splits/test/images/009841.jpg: 640x1280 2 cyclists,
 10.5ms
 image 995/1368 /content/splits/test/images/009845.jpg: 640x1280 2 cyclists,
 7.6ms
 image 996/1368 /content/splits/test/images/009864.jpg: 640x1280 1 cyclist, 7.5ms
 image 997/1368 /content/splits/test/images/009880.jpg: 640x1280 1 cyclist, 7.3ms
 image 998/1368 /content/splits/test/images/009886.jpg: 640x1280 2 cyclists,
 10.0ms
 image 999/1368 /content/splits/test/images/009894.jpg: 640x1280 4 cyclists,
 7.6ms
 image 1000/1368 /content/splits/test/images/009902.jpg: 640x1280 3 cyclists,
 7.7ms
 image 1001/1368 /content/splits/test/images/009907.jpg: 640x1280 1 cyclist,
 7.9ms
 image 1002/1368 /content/splits/test/images/009911.jpg: 640x1280 2 cyclists,
 8.0ms
 image 1003/1368 /content/splits/test/images/009924.jpg: 640x1280 2 cyclists,
 7.9ms
 image 1004/1368 /content/splits/test/images/009929.jpg: 640x1280 2 cyclists,
 7.7ms
 image 1005/1368 /content/splits/test/images/009951.jpg: 640x1280 1 cyclist,
 7.3ms
 image 1006/1368 /content/splits/test/images/009965.jpg: 640x1280 1 cyclist,
 7.4ms
 image 1007/1368 /content/splits/test/images/009969.jpg: 640x1280 1 cyclist,
 7.2ms
 image 1008/1368 /content/splits/test/images/009990.jpg: 640x1280 1 cyclist,
 7.2ms
 image 1009/1368 /content/splits/test/images/010016.jpg: 640x1280 1 cyclist,
 7.1ms
 image 1010/1368 /content/splits/test/images/010027.jpg: 640x1280 1 cyclist,
 7.1ms

image 1011/1368 /content/splits/test/images/010028.jpg: 640x1280 2 cyclists,
7.6ms
image 1012/1368 /content/splits/test/images/010043.jpg: 640x1280 1 cyclist,
8.4ms
image 1013/1368 /content/splits/test/images/010047.jpg: 640x1280 1 cyclist,
10.2ms
image 1014/1368 /content/splits/test/images/010069.jpg: 640x1280 3 cyclists,
10.1ms
image 1015/1368 /content/splits/test/images/010074.jpg: 640x1280 1 cyclist,
7.7ms
image 1016/1368 /content/splits/test/images/010086.jpg: 640x1280 3 cyclists,
7.1ms
image 1017/1368 /content/splits/test/images/010113.jpg: 640x1280 7 cyclists,
7.2ms
image 1018/1368 /content/splits/test/images/010121.jpg: 640x1280 6 cyclists,
7.5ms
image 1019/1368 /content/splits/test/images/010129.jpg: 640x1280 7 cyclists,
7.5ms
image 1020/1368 /content/splits/test/images/010135.jpg: 640x1280 4 cyclists,
7.7ms
image 1021/1368 /content/splits/test/images/010139.jpg: 640x1280 5 cyclists,
7.8ms
image 1022/1368 /content/splits/test/images/010144.jpg: 640x1280 3 cyclists,
7.5ms
image 1023/1368 /content/splits/test/images/010146.jpg: 640x1280 5 cyclists,
7.8ms
image 1024/1368 /content/splits/test/images/010173.jpg: 640x1280 5 cyclists,
8.2ms
image 1025/1368 /content/splits/test/images/010174.jpg: 640x1280 4 cyclists,
8.1ms
image 1026/1368 /content/splits/test/images/010177.jpg: 640x1280 5 cyclists,
7.9ms
image 1027/1368 /content/splits/test/images/010197.jpg: 640x1280 5 cyclists,
10.5ms
image 1028/1368 /content/splits/test/images/010200.jpg: 640x1280 8 cyclists,
7.8ms
image 1029/1368 /content/splits/test/images/010205.jpg: 640x1280 5 cyclists,
10.9ms
image 1030/1368 /content/splits/test/images/010208.jpg: 640x1280 7 cyclists,
10.0ms
image 1031/1368 /content/splits/test/images/010231.jpg: 640x1280 1 cyclist,
7.8ms
image 1032/1368 /content/splits/test/images/010233.jpg: 640x1280 1 cyclist,
7.5ms
image 1033/1368 /content/splits/test/images/010235.jpg: 640x1280 2 cyclists,
7.3ms
image 1034/1368 /content/splits/test/images/010263.jpg: 640x1280 1 cyclist,
7.6ms

image 1035/1368 /content/splits/test/images/010277.jpg: 640x1280 2 cyclists,
7.4ms
image 1036/1368 /content/splits/test/images/010279.jpg: 640x1280 1 cyclist,
7.3ms
image 1037/1368 /content/splits/test/images/010282.jpg: 640x1280 2 cyclists,
7.9ms
image 1038/1368 /content/splits/test/images/010292.jpg: 640x1280 2 cyclists,
7.6ms
image 1039/1368 /content/splits/test/images/010301.jpg: 640x1280 2 cyclists,
9.9ms
image 1040/1368 /content/splits/test/images/010326.jpg: 640x1280 3 cyclists,
7.7ms
image 1041/1368 /content/splits/test/images/010327.jpg: 640x1280 3 cyclists,
7.6ms
image 1042/1368 /content/splits/test/images/010372.jpg: 640x1280 1 cyclist,
8.1ms
image 1043/1368 /content/splits/test/images/010388.jpg: 640x1280 4 cyclists,
7.9ms
image 1044/1368 /content/splits/test/images/010392.jpg: 640x1280 4 cyclists,
7.7ms
image 1045/1368 /content/splits/test/images/010396.jpg: 640x1280 4 cyclists,
7.7ms
image 1046/1368 /content/splits/test/images/010405.jpg: 640x1280 3 cyclists,
7.8ms
image 1047/1368 /content/splits/test/images/010408.jpg: 640x1280 2 cyclists,
7.9ms
image 1048/1368 /content/splits/test/images/010412.jpg: 640x1280 4 cyclists,
7.8ms
image 1049/1368 /content/splits/test/images/010418.jpg: 640x1280 4 cyclists,
8.5ms
image 1050/1368 /content/splits/test/images/010419.jpg: 640x1280 4 cyclists,
7.7ms
image 1051/1368 /content/splits/test/images/010420.jpg: 640x1280 4 cyclists,
7.4ms
image 1052/1368 /content/splits/test/images/010423.jpg: 640x1280 7 cyclists,
7.2ms
image 1053/1368 /content/splits/test/images/010434.jpg: 640x1280 3 cyclists,
7.4ms
image 1054/1368 /content/splits/test/images/010439.jpg: 640x1280 6 cyclists,
7.3ms
image 1055/1368 /content/splits/test/images/010445.jpg: 640x1280 5 cyclists,
7.3ms
image 1056/1368 /content/splits/test/images/010458.jpg: 640x1280 6 cyclists,
7.1ms
image 1057/1368 /content/splits/test/images/010463.jpg: 640x1280 4 cyclists,
7.0ms
image 1058/1368 /content/splits/test/images/010468.jpg: 640x1280 2 cyclists,
7.1ms

image 1059/1368 /content/splits/test/images/010482.jpg: 640x1280 6 cyclists,
7.1ms
image 1060/1368 /content/splits/test/images/010484.jpg: 640x1280 3 cyclists,
7.0ms
image 1061/1368 /content/splits/test/images/010500.jpg: 640x1280 10 cyclists,
7.1ms
image 1062/1368 /content/splits/test/images/010504.jpg: 640x1280 8 cyclists,
7.4ms
image 1063/1368 /content/splits/test/images/010505.jpg: 640x1280 7 cyclists,
7.4ms
image 1064/1368 /content/splits/test/images/010512.jpg: 640x1280 7 cyclists,
7.5ms
image 1065/1368 /content/splits/test/images/010516.jpg: 640x1280 7 cyclists,
7.4ms
image 1066/1368 /content/splits/test/images/010517.jpg: 640x1280 5 cyclists,
7.3ms
image 1067/1368 /content/splits/test/images/010520.jpg: 640x1280 8 cyclists,
7.2ms
image 1068/1368 /content/splits/test/images/010528.jpg: 640x1280 6 cyclists,
7.3ms
image 1069/1368 /content/splits/test/images/010551.jpg: 640x1280 3 cyclists,
7.2ms
image 1070/1368 /content/splits/test/images/010559.jpg: 640x1280 2 cyclists,
8.1ms
image 1071/1368 /content/splits/test/images/010567.jpg: 640x1280 3 cyclists,
8.3ms
image 1072/1368 /content/splits/test/images/010573.jpg: 640x1280 4 cyclists,
7.5ms
image 1073/1368 /content/splits/test/images/010607.jpg: 640x1280 5 cyclists,
7.2ms
image 1074/1368 /content/splits/test/images/010633.jpg: 640x1280 4 cyclists,
7.5ms
image 1075/1368 /content/splits/test/images/010662.jpg: 640x1280 5 cyclists,
7.4ms
image 1076/1368 /content/splits/test/images/010664.jpg: 640x1280 5 cyclists,
7.3ms
image 1077/1368 /content/splits/test/images/010665.jpg: 640x1280 5 cyclists,
7.3ms
image 1078/1368 /content/splits/test/images/010710.jpg: 640x1280 4 cyclists,
7.2ms
image 1079/1368 /content/splits/test/images/010741.jpg: 640x1280 3 cyclists,
7.1ms
image 1080/1368 /content/splits/test/images/010754.jpg: 640x1280 2 cyclists,
7.1ms
image 1081/1368 /content/splits/test/images/010769.jpg: 640x1280 3 cyclists,
7.1ms
image 1082/1368 /content/splits/test/images/010770.jpg: 640x1280 4 cyclists,
7.3ms

image 1083/1368 /content/splits/test/images/010797.jpg: 640x1280 2 cyclists,
7.1ms
image 1084/1368 /content/splits/test/images/010837.jpg: 640x1280 2 cyclists,
7.2ms
image 1085/1368 /content/splits/test/images/010844.jpg: 640x1280 2 cyclists,
7.1ms
image 1086/1368 /content/splits/test/images/010850.jpg: 640x1280 2 cyclists,
7.1ms
image 1087/1368 /content/splits/test/images/010852.jpg: 640x1280 3 cyclists,
7.1ms
image 1088/1368 /content/splits/test/images/010853.jpg: 640x1280 3 cyclists,
7.4ms
image 1089/1368 /content/splits/test/images/010854.jpg: 640x1280 1 cyclist,
7.2ms
image 1090/1368 /content/splits/test/images/010866.jpg: 640x1280 2 cyclists,
7.0ms
image 1091/1368 /content/splits/test/images/010874.jpg: 640x1280 2 cyclists,
7.1ms
image 1092/1368 /content/splits/test/images/010875.jpg: 640x1280 2 cyclists,
7.0ms
image 1093/1368 /content/splits/test/images/010893.jpg: 640x1280 4 cyclists,
8.0ms
image 1094/1368 /content/splits/test/images/010912.jpg: 640x1280 1 cyclist,
7.1ms
image 1095/1368 /content/splits/test/images/010918.jpg: 640x1280 1 cyclist,
7.9ms
image 1096/1368 /content/splits/test/images/010920.jpg: 640x1280 1 cyclist,
7.3ms
image 1097/1368 /content/splits/test/images/010930.jpg: 640x1280 2 cyclists,
7.5ms
image 1098/1368 /content/splits/test/images/010944.jpg: 640x1280 1 cyclist,
7.1ms
image 1099/1368 /content/splits/test/images/010958.jpg: 640x1280 1 cyclist,
7.1ms
image 1100/1368 /content/splits/test/images/010959.jpg: 640x1280 1 cyclist,
7.4ms
image 1101/1368 /content/splits/test/images/010962.jpg: 640x1280 1 cyclist,
7.1ms
image 1102/1368 /content/splits/test/images/010963.jpg: 640x1280 1 cyclist,
7.6ms
image 1103/1368 /content/splits/test/images/010965.jpg: 640x1280 1 cyclist,
7.6ms
image 1104/1368 /content/splits/test/images/010967.jpg: 640x1280 1 cyclist,
7.2ms
image 1105/1368 /content/splits/test/images/010980.jpg: 640x1280 1 cyclist,
7.1ms
image 1106/1368 /content/splits/test/images/010993.jpg: 640x1280 1 cyclist,
7.0ms

image 1107/1368 /content/splits/test/images/010996.jpg: 640x1280 1 cyclist,
7.0ms
image 1108/1368 /content/splits/test/images/010998.jpg: 640x1280 1 cyclist,
7.7ms
image 1109/1368 /content/splits/test/images/011002.jpg: 640x1280 1 cyclist,
7.3ms
image 1110/1368 /content/splits/test/images/011008.jpg: 640x1280 1 cyclist,
7.2ms
image 1111/1368 /content/splits/test/images/011009.jpg: 640x1280 2 cyclists,
7.4ms
image 1112/1368 /content/splits/test/images/011010.jpg: 640x1280 2 cyclists,
7.3ms
image 1113/1368 /content/splits/test/images/011019.jpg: 640x1280 1 cyclist,
7.1ms
image 1114/1368 /content/splits/test/images/011021.jpg: 640x1280 1 cyclist,
7.5ms
image 1115/1368 /content/splits/test/images/011042.jpg: 640x1280 2 cyclists,
7.1ms
image 1116/1368 /content/splits/test/images/011045.jpg: 640x1280 2 cyclists,
7.5ms
image 1117/1368 /content/splits/test/images/011063.jpg: 640x1280 2 cyclists,
7.3ms
image 1118/1368 /content/splits/test/images/011077.jpg: 640x1280 2 cyclists,
8.1ms
image 1119/1368 /content/splits/test/images/011079.jpg: 640x1280 2 cyclists,
8.0ms
image 1120/1368 /content/splits/test/images/011086.jpg: 640x1280 4 cyclists,
7.2ms
image 1121/1368 /content/splits/test/images/011090.jpg: 640x1280 5 cyclists,
7.2ms
image 1122/1368 /content/splits/test/images/011095.jpg: 640x1280 5 cyclists,
14.8ms
image 1123/1368 /content/splits/test/images/011112.jpg: 640x1280 3 cyclists,
7.3ms
image 1124/1368 /content/splits/test/images/011117.jpg: 640x1280 5 cyclists,
7.1ms
image 1125/1368 /content/splits/test/images/011122.jpg: 640x1280 3 cyclists,
7.4ms
image 1126/1368 /content/splits/test/images/011148.jpg: 640x1280 4 cyclists,
7.2ms
image 1127/1368 /content/splits/test/images/011149.jpg: 640x1280 3 cyclists,
7.2ms
image 1128/1368 /content/splits/test/images/011155.jpg: 640x1280 6 cyclists,
7.4ms
image 1129/1368 /content/splits/test/images/011156.jpg: 640x1280 6 cyclists,
8.5ms
image 1130/1368 /content/splits/test/images/011164.jpg: 640x1280 6 cyclists,
7.1ms

image 1131/1368 /content/splits/test/images/011166.jpg: 640x1280 6 cyclists,
7.2ms
image 1132/1368 /content/splits/test/images/011196.jpg: 640x1280 1 cyclist,
7.2ms
image 1133/1368 /content/splits/test/images/011199.jpg: 640x1280 4 cyclists,
7.1ms
image 1134/1368 /content/splits/test/images/011209.jpg: 640x1280 2 cyclists,
7.1ms
image 1135/1368 /content/splits/test/images/011220.jpg: 640x1280 2 cyclists,
7.7ms
image 1136/1368 /content/splits/test/images/011230.jpg: 640x1280 4 cyclists,
7.2ms
image 1137/1368 /content/splits/test/images/011236.jpg: 640x1280 3 cyclists,
7.1ms
image 1138/1368 /content/splits/test/images/011242.jpg: 640x1280 7 cyclists,
7.1ms
image 1139/1368 /content/splits/test/images/011249.jpg: 640x1280 8 cyclists,
7.4ms
image 1140/1368 /content/splits/test/images/011255.jpg: 640x1280 6 cyclists,
7.3ms
image 1141/1368 /content/splits/test/images/011258.jpg: 640x1280 8 cyclists,
8.3ms
image 1142/1368 /content/splits/test/images/011264.jpg: 640x1280 6 cyclists,
7.4ms
image 1143/1368 /content/splits/test/images/011266.jpg: 640x1280 6 cyclists,
7.4ms
image 1144/1368 /content/splits/test/images/011275.jpg: 640x1280 5 cyclists,
7.5ms
image 1145/1368 /content/splits/test/images/011287.jpg: 640x1280 8 cyclists,
7.5ms
image 1146/1368 /content/splits/test/images/011288.jpg: 640x1280 8 cyclists,
7.2ms
image 1147/1368 /content/splits/test/images/011304.jpg: 640x1280 8 cyclists,
7.3ms
image 1148/1368 /content/splits/test/images/011317.jpg: 640x1280 7 cyclists,
7.7ms
image 1149/1368 /content/splits/test/images/011321.jpg: 640x1280 7 cyclists,
7.2ms
image 1150/1368 /content/splits/test/images/011327.jpg: 640x1280 10 cyclists,
7.3ms
image 1151/1368 /content/splits/test/images/011346.jpg: 640x1280 2 cyclists,
7.3ms
image 1152/1368 /content/splits/test/images/011360.jpg: 640x1280 1 cyclist,
7.2ms
image 1153/1368 /content/splits/test/images/011361.jpg: 640x1280 1 cyclist,
7.6ms
image 1154/1368 /content/splits/test/images/011366.jpg: 640x1280 1 cyclist,
7.1ms

image 1155/1368 /content/splits/test/images/011370.jpg: 640x1280 2 cyclists,
7.0ms
image 1156/1368 /content/splits/test/images/011394.jpg: 640x1280 1 cyclist,
7.1ms
image 1157/1368 /content/splits/test/images/011408.jpg: 640x1280 5 cyclists,
7.0ms
image 1158/1368 /content/splits/test/images/011410.jpg: 640x1280 6 cyclists,
7.3ms
image 1159/1368 /content/splits/test/images/011420.jpg: 640x1280 3 cyclists,
7.3ms
image 1160/1368 /content/splits/test/images/011423.jpg: 640x1280 3 cyclists,
7.1ms
image 1161/1368 /content/splits/test/images/011432.jpg: 640x1280 3 cyclists,
7.0ms
image 1162/1368 /content/splits/test/images/011451.jpg: 640x1280 1 cyclist,
7.1ms
image 1163/1368 /content/splits/test/images/011452.jpg: 640x1280 1 cyclist,
7.6ms
image 1164/1368 /content/splits/test/images/011462.jpg: 640x1280 1 cyclist,
8.1ms
image 1165/1368 /content/splits/test/images/011466.jpg: 640x1280 (no
detections), 7.1ms
image 1166/1368 /content/splits/test/images/011483.jpg: 640x1280 (no
detections), 7.1ms
image 1167/1368 /content/splits/test/images/011504.jpg: 640x1280 (no
detections), 7.3ms
image 1168/1368 /content/splits/test/images/011538.jpg: 640x1280 (no
detections), 7.1ms
image 1169/1368 /content/splits/test/images/011539.jpg: 640x1280 (no
detections), 7.2ms
image 1170/1368 /content/splits/test/images/011540.jpg: 640x1280 (no
detections), 7.3ms
image 1171/1368 /content/splits/test/images/011543.jpg: 640x1280 (no
detections), 7.2ms
image 1172/1368 /content/splits/test/images/011574.jpg: 640x1280 (no
detections), 7.1ms
image 1173/1368 /content/splits/test/images/011608.jpg: 640x1280 1 cyclist,
7.0ms
image 1174/1368 /content/splits/test/images/011642.jpg: 640x1280 1 cyclist,
7.2ms
image 1175/1368 /content/splits/test/images/011660.jpg: 640x1280 1 cyclist,
7.1ms
image 1176/1368 /content/splits/test/images/011661.jpg: 640x1280 1 cyclist,
7.0ms
image 1177/1368 /content/splits/test/images/011669.jpg: 640x1280 1 cyclist,
7.1ms
image 1178/1368 /content/splits/test/images/011675.jpg: 640x1280 1 cyclist,
7.8ms

image 1179/1368 /content/splits/test/images/011680.jpg: 640x1280 1 cyclist,
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 image 1180/1368 /content/splits/test/images/011687.jpg: 640x1280 1 cyclist,
 7.0ms
 image 1181/1368 /content/splits/test/images/011691.jpg: 640x1280 1 cyclist,
 7.1ms
 image 1182/1368 /content/splits/test/images/011697.jpg: 640x1280 1 cyclist,
 7.1ms
 image 1183/1368 /content/splits/test/images/011699.jpg: 640x1280 1 cyclist,
 7.2ms
 image 1184/1368 /content/splits/test/images/011712.jpg: 640x1280 1 cyclist,
 7.1ms
 image 1185/1368 /content/splits/test/images/011715.jpg: 640x1280 (no
 detections), 7.1ms
 image 1186/1368 /content/splits/test/images/011726.jpg: 640x1280 (no
 detections), 7.0ms
 image 1187/1368 /content/splits/test/images/011729.jpg: 640x1280 (no
 detections), 7.1ms
 image 1188/1368 /content/splits/test/images/011731.jpg: 640x1280 (no
 detections), 7.4ms
 image 1189/1368 /content/splits/test/images/011756.jpg: 640x1280 (no
 detections), 7.5ms
 image 1190/1368 /content/splits/test/images/011758.jpg: 640x1280 (no
 detections), 7.2ms
 image 1191/1368 /content/splits/test/images/011760.jpg: 640x1280 (no
 detections), 7.3ms
 image 1192/1368 /content/splits/test/images/011770.jpg: 640x1280 (no
 detections), 7.2ms
 image 1193/1368 /content/splits/test/images/011777.jpg: 640x1280 (no
 detections), 7.1ms
 image 1194/1368 /content/splits/test/images/011780.jpg: 640x1280 (no
 detections), 7.3ms
 image 1195/1368 /content/splits/test/images/011783.jpg: 640x1280 (no
 detections), 12.2ms
 image 1196/1368 /content/splits/test/images/011792.jpg: 640x1280 (no
 detections), 7.7ms
 image 1197/1368 /content/splits/test/images/011817.jpg: 640x1280 2 cyclists,
 7.3ms
 image 1198/1368 /content/splits/test/images/011831.jpg: 640x1280 2 cyclists,
 7.2ms
 image 1199/1368 /content/splits/test/images/011832.jpg: 640x1280 2 cyclists,
 7.3ms
 image 1200/1368 /content/splits/test/images/011837.jpg: 640x1280 2 cyclists,
 7.2ms
 image 1201/1368 /content/splits/test/images/011841.jpg: 640x1280 3 cyclists,
 7.5ms
 image 1202/1368 /content/splits/test/images/011860.jpg: 640x1280 1 cyclist,
 7.2ms

image 1203/1368 /content/splits/test/images/011865.jpg: 640x1280 2 cyclists,
 7.2ms
 image 1204/1368 /content/splits/test/images/011870.jpg: 640x1280 3 cyclists,
 7.5ms
 image 1205/1368 /content/splits/test/images/011875.jpg: 640x1280 3 cyclists,
 7.1ms
 image 1206/1368 /content/splits/test/images/011877.jpg: 640x1280 3 cyclists,
 7.0ms
 image 1207/1368 /content/splits/test/images/011878.jpg: 640x1280 3 cyclists,
 7.0ms
 image 1208/1368 /content/splits/test/images/011879.jpg: 640x1280 3 cyclists,
 7.2ms
 image 1209/1368 /content/splits/test/images/011889.jpg: 640x1280 3 cyclists,
 7.2ms
 image 1210/1368 /content/splits/test/images/011892.jpg: 640x1280 2 cyclists,
 7.4ms
 image 1211/1368 /content/splits/test/images/011905.jpg: 640x1280 2 cyclists,
 7.0ms
 image 1212/1368 /content/splits/test/images/011921.jpg: 640x1280 2 cyclists,
 7.0ms
 image 1213/1368 /content/splits/test/images/011922.jpg: 640x1280 2 cyclists,
 7.1ms
 image 1214/1368 /content/splits/test/images/011925.jpg: 640x1280 2 cyclists,
 7.3ms
 image 1215/1368 /content/splits/test/images/011972.jpg: 640x1280 1 cyclist,
 7.1ms
 image 1216/1368 /content/splits/test/images/011982.jpg: 640x1280 1 cyclist,
 7.2ms
 image 1217/1368 /content/splits/test/images/011990.jpg: 640x1280 2 cyclists,
 7.4ms
 image 1218/1368 /content/splits/test/images/012000.jpg: 640x1280 2 cyclists,
 7.2ms
 image 1219/1368 /content/splits/test/images/012015.jpg: 640x1280 1 cyclist,
 7.5ms
 image 1220/1368 /content/splits/test/images/012017.jpg: 640x1280 2 cyclists,
 7.2ms
 image 1221/1368 /content/splits/test/images/012037.jpg: 640x1280 (no
 detections), 7.1ms
 image 1222/1368 /content/splits/test/images/012043.jpg: 640x1280 (no
 detections), 7.0ms
 image 1223/1368 /content/splits/test/images/012074.jpg: 640x1280 2 cyclists,
 7.0ms
 image 1224/1368 /content/splits/test/images/012084.jpg: 640x1280 2 cyclists,
 7.1ms
 image 1225/1368 /content/splits/test/images/012085.jpg: 640x1280 3 cyclists,
 7.2ms
 image 1226/1368 /content/splits/test/images/012091.jpg: 640x1280 3 cyclists,
 7.6ms

image 1227/1368 /content/splits/test/images/012104.jpg: 640x1280 3 cyclists,
 7.1ms
 image 1228/1368 /content/splits/test/images/012143.jpg: 640x1280 1 cyclist,
 7.1ms
 image 1229/1368 /content/splits/test/images/012163.jpg: 640x1280 1 cyclist,
 7.1ms
 image 1230/1368 /content/splits/test/images/012186.jpg: 640x1280 1 cyclist,
 7.5ms
 image 1231/1368 /content/splits/test/images/012190.jpg: 640x1280 1 cyclist,
 7.3ms
 image 1232/1368 /content/splits/test/images/012201.jpg: 640x1280 1 cyclist,
 7.2ms
 image 1233/1368 /content/splits/test/images/012228.jpg: 640x1280 2 cyclists,
 7.3ms
 image 1234/1368 /content/splits/test/images/012238.jpg: 640x1280 2 cyclists,
 7.6ms
 image 1235/1368 /content/splits/test/images/012266.jpg: 640x1280 2 cyclists,
 7.3ms
 image 1236/1368 /content/splits/test/images/012272.jpg: 640x1280 2 cyclists,
 7.6ms
 image 1237/1368 /content/splits/test/images/012273.jpg: 640x1280 2 cyclists,
 8.6ms
 image 1238/1368 /content/splits/test/images/012283.jpg: 640x1280 6 cyclists,
 9.4ms
 image 1239/1368 /content/splits/test/images/012305.jpg: 640x1280 4 cyclists,
 8.3ms
 image 1240/1368 /content/splits/test/images/012320.jpg: 640x1280 4 cyclists,
 10.0ms
 image 1241/1368 /content/splits/test/images/012322.jpg: 640x1280 5 cyclists,
 7.2ms
 image 1242/1368 /content/splits/test/images/012326.jpg: 640x1280 5 cyclists,
 7.2ms
 image 1243/1368 /content/splits/test/images/012331.jpg: 640x1280 5 cyclists,
 7.2ms
 image 1244/1368 /content/splits/test/images/012349.jpg: 640x1280 5 cyclists,
 9.7ms
 image 1245/1368 /content/splits/test/images/012373.jpg: 640x1280 3 cyclists,
 7.6ms
 image 1246/1368 /content/splits/test/images/012377.jpg: 640x1280 1 cyclist,
 7.1ms
 image 1247/1368 /content/splits/test/images/012386.jpg: 640x1280 (no
 detections), 7.1ms
 image 1248/1368 /content/splits/test/images/012389.jpg: 640x1280 (no
 detections), 7.1ms
 image 1249/1368 /content/splits/test/images/012414.jpg: 640x1280 1 cyclist,
 7.4ms
 image 1250/1368 /content/splits/test/images/012415.jpg: 640x1280 1 cyclist,
 7.0ms

image 1251/1368 /content/splits/test/images/012422.jpg: 640x1280 2 cyclists,
7.0ms
image 1252/1368 /content/splits/test/images/012430.jpg: 640x1280 1 cyclist,
7.0ms
image 1253/1368 /content/splits/test/images/012433.jpg: 640x1280 1 cyclist,
7.0ms
image 1254/1368 /content/splits/test/images/012435.jpg: 640x1280 1 cyclist,
7.1ms
image 1255/1368 /content/splits/test/images/012444.jpg: 640x1280 1 cyclist,
6.9ms
image 1256/1368 /content/splits/test/images/012455.jpg: 640x1280 (no
detections), 7.1ms
image 1257/1368 /content/splits/test/images/012459.jpg: 640x1280 (no
detections), 7.9ms
image 1258/1368 /content/splits/test/images/012468.jpg: 640x1280 (no
detections), 7.1ms
image 1259/1368 /content/splits/test/images/012473.jpg: 640x1280 (no
detections), 7.3ms
image 1260/1368 /content/splits/test/images/012507.jpg: 640x1280 (no
detections), 7.1ms
image 1261/1368 /content/splits/test/images/012511.jpg: 640x1280 (no
detections), 7.0ms
image 1262/1368 /content/splits/test/images/012514.jpg: 640x1280 (no
detections), 7.9ms
image 1263/1368 /content/splits/test/images/012545.jpg: 640x1280 (no
detections), 8.1ms
image 1264/1368 /content/splits/test/images/012554.jpg: 640x1280 (no
detections), 8.1ms
image 1265/1368 /content/splits/test/images/012565.jpg: 640x1280 (no
detections), 7.3ms
image 1266/1368 /content/splits/test/images/012566.jpg: 640x1280 (no
detections), 7.0ms
image 1267/1368 /content/splits/test/images/012568.jpg: 640x1280 (no
detections), 7.0ms
image 1268/1368 /content/splits/test/images/012569.jpg: 640x1280 (no
detections), 7.6ms
image 1269/1368 /content/splits/test/images/012584.jpg: 640x1280 (no
detections), 7.5ms
image 1270/1368 /content/splits/test/images/012591.jpg: 640x1280 (no
detections), 7.9ms
image 1271/1368 /content/splits/test/images/012602.jpg: 640x1280 (no
detections), 7.3ms
image 1272/1368 /content/splits/test/images/012606.jpg: 640x1280 (no
detections), 7.5ms
image 1273/1368 /content/splits/test/images/012608.jpg: 640x1280 (no
detections), 7.2ms
image 1274/1368 /content/splits/test/images/012617.jpg: 640x1280 (no
detections), 7.1ms

image 1275/1368 /content/splits/test/images/012619.jpg: 640x1280 (no detections), 7.2ms
image 1276/1368 /content/splits/test/images/012652.jpg: 640x1280 (no detections), 7.2ms
image 1277/1368 /content/splits/test/images/012662.jpg: 640x1280 (no detections), 7.2ms
image 1278/1368 /content/splits/test/images/012664.jpg: 640x1280 (no detections), 7.4ms
image 1279/1368 /content/splits/test/images/012670.jpg: 640x1280 (no detections), 7.3ms
image 1280/1368 /content/splits/test/images/012680.jpg: 640x1280 (no detections), 7.3ms
image 1281/1368 /content/splits/test/images/012681.jpg: 640x1280 (no detections), 7.9ms
image 1282/1368 /content/splits/test/images/012683.jpg: 640x1280 (no detections), 8.1ms
image 1283/1368 /content/splits/test/images/012688.jpg: 640x1280 (no detections), 7.4ms
image 1284/1368 /content/splits/test/images/012710.jpg: 640x1280 (no detections), 7.4ms
image 1285/1368 /content/splits/test/images/012732.jpg: 640x1280 (no detections), 7.3ms
image 1286/1368 /content/splits/test/images/012738.jpg: 640x1280 (no detections), 7.5ms
image 1287/1368 /content/splits/test/images/012777.jpg: 640x1280 (no detections), 7.4ms
image 1288/1368 /content/splits/test/images/012786.jpg: 640x1280 (no detections), 7.8ms
image 1289/1368 /content/splits/test/images/012802.jpg: 640x1280 (no detections), 10.8ms
image 1290/1368 /content/splits/test/images/012815.jpg: 640x1280 (no detections), 8.8ms
image 1291/1368 /content/splits/test/images/012825.jpg: 640x1280 (no detections), 7.5ms
image 1292/1368 /content/splits/test/images/012830.jpg: 640x1280 (no detections), 7.7ms
image 1293/1368 /content/splits/test/images/012837.jpg: 640x1280 (no detections), 7.8ms
image 1294/1368 /content/splits/test/images/012838.jpg: 640x1280 (no detections), 8.1ms
image 1295/1368 /content/splits/test/images/012884.jpg: 640x1280 (no detections), 8.2ms
image 1296/1368 /content/splits/test/images/012912.jpg: 640x1280 (no detections), 7.9ms
image 1297/1368 /content/splits/test/images/012915.jpg: 640x1280 1 cyclist, 7.9ms
image 1298/1368 /content/splits/test/images/012925.jpg: 640x1280 1 cyclist, 7.9ms

image 1299/1368 /content/splits/test/images/012932.jpg: 640x1280 (no detections), 8.0ms
image 1300/1368 /content/splits/test/images/012972.jpg: 640x1280 (no detections), 7.8ms
image 1301/1368 /content/splits/test/images/012973.jpg: 640x1280 (no detections), 7.7ms
image 1302/1368 /content/splits/test/images/012992.jpg: 640x1280 (no detections), 7.3ms
image 1303/1368 /content/splits/test/images/013019.jpg: 640x1280 (no detections), 7.8ms
image 1304/1368 /content/splits/test/images/013038.jpg: 640x1280 (no detections), 7.2ms
image 1305/1368 /content/splits/test/images/013039.jpg: 640x1280 (no detections), 7.2ms
image 1306/1368 /content/splits/test/images/013042.jpg: 640x1280 (no detections), 7.4ms
image 1307/1368 /content/splits/test/images/013045.jpg: 640x1280 (no detections), 7.3ms
image 1308/1368 /content/splits/test/images/013073.jpg: 640x1280 (no detections), 7.3ms
image 1309/1368 /content/splits/test/images/013082.jpg: 640x1280 1 cyclist, 8.5ms
image 1310/1368 /content/splits/test/images/013095.jpg: 640x1280 1 cyclist, 7.3ms
image 1311/1368 /content/splits/test/images/013130.jpg: 640x1280 (no detections), 7.1ms
image 1312/1368 /content/splits/test/images/013139.jpg: 640x1280 (no detections), 7.3ms
image 1313/1368 /content/splits/test/images/013152.jpg: 640x1280 (no detections), 7.2ms
image 1314/1368 /content/splits/test/images/013163.jpg: 640x1280 (no detections), 7.2ms
image 1315/1368 /content/splits/test/images/013175.jpg: 640x1280 (no detections), 7.4ms
image 1316/1368 /content/splits/test/images/013177.jpg: 640x1280 (no detections), 7.5ms
image 1317/1368 /content/splits/test/images/013193.jpg: 640x1280 (no detections), 7.8ms
image 1318/1368 /content/splits/test/images/013195.jpg: 640x1280 (no detections), 9.3ms
image 1319/1368 /content/splits/test/images/013209.jpg: 640x1280 (no detections), 7.6ms
image 1320/1368 /content/splits/test/images/013212.jpg: 640x1280 (no detections), 8.9ms
image 1321/1368 /content/splits/test/images/013214.jpg: 640x1280 (no detections), 7.6ms
image 1322/1368 /content/splits/test/images/013218.jpg: 640x1280 (no detections), 7.5ms

image 1323/1368 /content/splits/test/images/013219.jpg: 640x1280 (no
 detections), 7.2ms
 image 1324/1368 /content/splits/test/images/013220.jpg: 640x1280 (no
 detections), 7.2ms
 image 1325/1368 /content/splits/test/images/013232.jpg: 640x1280 (no
 detections), 7.2ms
 image 1326/1368 /content/splits/test/images/013239.jpg: 640x1280 (no
 detections), 7.4ms
 image 1327/1368 /content/splits/test/images/013243.jpg: 640x1280 (no
 detections), 7.1ms
 image 1328/1368 /content/splits/test/images/013254.jpg: 640x1280 (no
 detections), 7.2ms
 image 1329/1368 /content/splits/test/images/013261.jpg: 640x1280 (no
 detections), 7.7ms
 image 1330/1368 /content/splits/test/images/013299.jpg: 640x1280 2 cyclists,
 7.4ms
 image 1331/1368 /content/splits/test/images/013301.jpg: 640x1280 3 cyclists,
 7.3ms
 image 1332/1368 /content/splits/test/images/013311.jpg: 640x1280 2 cyclists,
 7.2ms
 image 1333/1368 /content/splits/test/images/013316.jpg: 640x1280 2 cyclists,
 7.5ms
 image 1334/1368 /content/splits/test/images/013323.jpg: 640x1280 2 cyclists,
 7.3ms
 image 1335/1368 /content/splits/test/images/013326.jpg: 640x1280 2 cyclists,
 7.2ms
 image 1336/1368 /content/splits/test/images/013334.jpg: 640x1280 1 cyclist,
 7.1ms
 image 1337/1368 /content/splits/test/images/013336.jpg: 640x1280 1 cyclist,
 7.4ms
 image 1338/1368 /content/splits/test/images/013348.jpg: 640x1280 (no
 detections), 7.4ms
 image 1339/1368 /content/splits/test/images/013363.jpg: 640x1280 (no
 detections), 7.6ms
 image 1340/1368 /content/splits/test/images/013366.jpg: 640x1280 (no
 detections), 7.4ms
 image 1341/1368 /content/splits/test/images/013394.jpg: 640x1280 2 cyclists,
 7.3ms
 image 1342/1368 /content/splits/test/images/013395.jpg: 640x1280 2 cyclists,
 7.6ms
 image 1343/1368 /content/splits/test/images/013398.jpg: 640x1280 2 cyclists,
 7.6ms
 image 1344/1368 /content/splits/test/images/013429.jpg: 640x1280 4 cyclists,
 8.0ms
 image 1345/1368 /content/splits/test/images/013434.jpg: 640x1280 4 cyclists,
 7.7ms
 image 1346/1368 /content/splits/test/images/013436.jpg: 640x1280 6 cyclists,
 7.4ms

```

image 1347/1368 /content/splits/test/images/013443.jpg: 640x1280 4 cyclists,
7.8ms
image 1348/1368 /content/splits/test/images/013454.jpg: 640x1280 5 cyclists,
8.8ms
image 1349/1368 /content/splits/test/images/013461.jpg: 640x1280 4 cyclists,
7.9ms
image 1350/1368 /content/splits/test/images/013479.jpg: 640x1280 2 cyclists,
7.7ms
image 1351/1368 /content/splits/test/images/013482.jpg: 640x1280 2 cyclists,
7.4ms
image 1352/1368 /content/splits/test/images/013489.jpg: 640x1280 2 cyclists,
8.2ms
image 1353/1368 /content/splits/test/images/013491.jpg: 640x1280 2 cyclists,
7.8ms
image 1354/1368 /content/splits/test/images/013528.jpg: 640x1280 5 cyclists,
7.5ms
image 1355/1368 /content/splits/test/images/013552.jpg: 640x1280 7 cyclists,
7.5ms
image 1356/1368 /content/splits/test/images/013575.jpg: 640x1280 5 cyclists,
7.3ms
image 1357/1368 /content/splits/test/images/013576.jpg: 640x1280 5 cyclists,
7.2ms
image 1358/1368 /content/splits/test/images/013584.jpg: 640x1280 4 cyclists,
7.6ms
image 1359/1368 /content/splits/test/images/013591.jpg: 640x1280 3 cyclists,
7.8ms
image 1360/1368 /content/splits/test/images/013593.jpg: 640x1280 4 cyclists,
10.0ms
image 1361/1368 /content/splits/test/images/013597.jpg: 640x1280 5 cyclists,
9.7ms
image 1362/1368 /content/splits/test/images/013602.jpg: 640x1280 5 cyclists,
7.7ms
image 1363/1368 /content/splits/test/images/013611.jpg: 640x1280 3 cyclists,
7.3ms
image 1364/1368 /content/splits/test/images/013619.jpg: 640x1280 4 cyclists,
7.9ms
image 1365/1368 /content/splits/test/images/013643.jpg: 640x1280 5 cyclists,
8.1ms
image 1366/1368 /content/splits/test/images/013651.jpg: 640x1280 8 cyclists,
7.6ms
image 1367/1368 /content/splits/test/images/013661.jpg: 640x1280 7 cyclists,
7.2ms
image 1368/1368 /content/splits/test/images/013671.jpg: 640x1280 4 cyclists,
7.5ms
Speed: 5.5ms preprocess, 7.6ms inference, 1.3ms postprocess per image at shape
(1, 3, 640, 1280)
Results saved to runs/detect/predict

```

0.7 Model Evaluation - Conclusion

0.7.1 Evaluation Results

Precision: **95.79%** Indicates the proportion of correctly predicted cyclist objects out of all predictions. The model minimizes false positives effectively.

Recall: **94.10%** Indicates the proportion of actual cyclist objects correctly detected by the model. The model achieves a high detection rate.

mAP@0.5: **88.30%** Reflects the model's performance across all predicted bounding boxes at an IoU threshold of 0.5. Indicates strong detection capabilities.

Overall Assessment The model demonstrated excellent detection accuracy with high precision and recall. The high mAP@0.5 score confirms that the model is highly effective in localizing and classifying cyclists at a standard IoU threshold.

0.8 Visualized Results

0.9 Function to create labels from an image

```
[63]: # Generate Labels for image
def create_labels(image_path, model, output_label_path):
    results = model(image_path)
    img = cv2.imread(image_path)
    height, width, _ = img.shape

    with open(output_label_path, 'w') as label_file:
        for detection in results[0].boxes:
            class_id = int(detection.cls)
            x1, y1, x2, y2 = detection.xyxy.cpu().numpy().flatten()
            box_width = (x2 - x1) / width
            box_height = (y2 - y1) / height
            center_x = (x1 + x2) / (2 * width)
            center_y = (y1 + y2) / (2 * height)
            label_file.write(f"{class_id} {center_x} {center_y} {box_width} \n")
            ↪{box_height}\n")
```

0.10 Usage

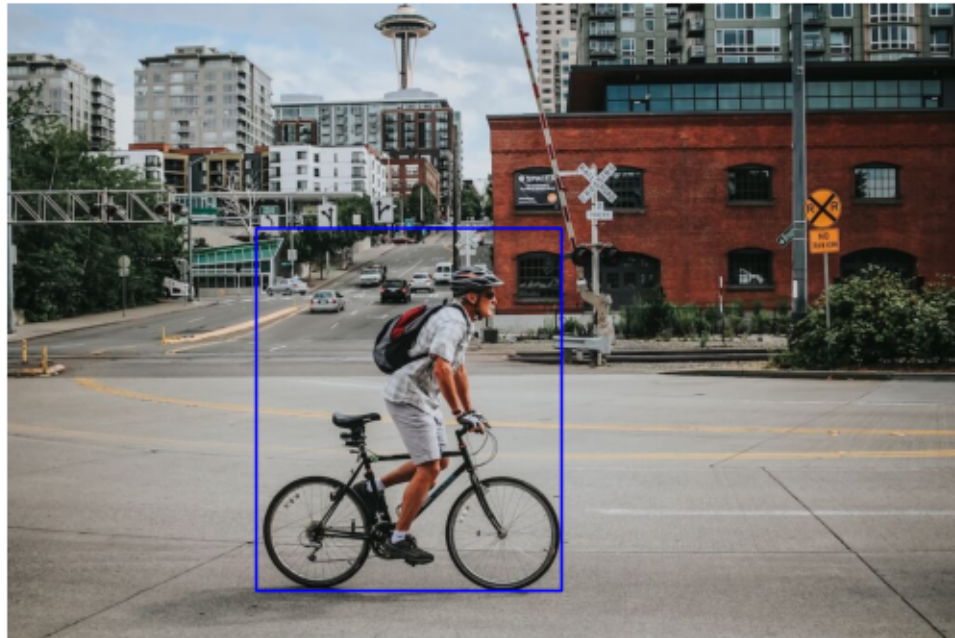
```
[64]: # Testing on an image
image_file = 'seattle'
test_image_path = os.path.join("/content/testing", f"{image_file}.jpg")
results = model(test_image_path, save=True)

output_label_path = os.path.join("testing", f"{image_file}.txt")
create_labels(test_image_path, model, output_label_path)
draw_bounding_boxes(test_image_path, output_label_path)
```

image 1/1 /content/testing/seattle.jpg: 864x1280 1 cyclist, 11.0ms
Speed: 8.4ms preprocess, 11.0ms inference, 1.8ms postprocess per image at shape
(1, 3, 864, 1280)

Results saved to runs/detect/predict

image 1/1 /content/testing/seattle.jpg: 864x1280 1 cyclist, 7.5ms
Speed: 6.3ms preprocess, 7.5ms inference, 1.4ms postprocess per image at shape
(1, 3, 864, 1280)



0.11 Convert the video into individual images saved to video_frames dir

```
[65]: def video_to_frames(video_path, output_dir):  
    cap = cv2.VideoCapture(video_path)  
    frame_count = 0  
  
    os.makedirs(output_dir, exist_ok=True)  
  
    while cap.isOpened():  
        ret, frame = cap.read()  
        if not ret:  
            break  
  
        frame_name = f"frame_{frame_count:04d}.png"  
        frame_path = os.path.join(output_dir, frame_name)
```

```

        cv2.imwrite(frame_path, frame)
        frame_count += 1

    cap.release()
    print(f"Extracted {frame_count} frames to {output_dir}")

# Example usage
video_path = os.path.join("testing", f"bikerVideo.mp4")
output_dir = "video_frames"
video_to_frames(video_path, output_dir)

```

Extracted 498 frames to video_frames

0.12 Create label files and images with bounding boxes

```

[66]: video_frame_directory = "video_frames"
      output_label_directory = "video_frames_labels"
      os.makedirs(output_label_directory, exist_ok=True)

      for frame_file in os.listdir(video_frame_directory):
          frame_path = os.path.join(video_frame_directory, frame_file)
          output_label_path = os.path.join(output_label_directory, f"{os.path.
↳splitext(frame_file)[0]}.txt")

          create_labels(frame_path, model, output_label_path)
          draw_bounding_boxes(frame_path, output_label_path, write_image=True,
↳filename=frame_file)

```

image 1/1 /content/video_frames/frame_0203.png: 736x1280 1 cyclist, 9.6ms
Speed: 5.1ms preprocess, 9.6ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0108.png: 736x1280 1 cyclist, 7.5ms
Speed: 4.8ms preprocess, 7.5ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0234.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0410.png: 736x1280 (no detections), 6.9ms
Speed: 4.6ms preprocess, 6.9ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0216.png: 736x1280 1 cyclist, 6.9ms
Speed: 4.6ms preprocess, 6.9ms inference, 1.3ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0274.png: 736x1280 1 cyclist, 8.0ms
Speed: 4.7ms preprocess, 8.0ms inference, 1.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0059.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0340.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0476.png: 736x1280 (no detections), 7.9ms
Speed: 4.7ms preprocess, 7.9ms inference, 0.7ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0207.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.7ms preprocess, 7.3ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0136.png: 736x1280 2 cyclists, 7.7ms
Speed: 5.0ms preprocess, 7.7ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0466.png: 736x1280 (no detections), 7.9ms
Speed: 7.9ms preprocess, 7.9ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0415.png: 736x1280 1 cyclist, 8.7ms
Speed: 5.3ms preprocess, 8.7ms inference, 1.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0143.png: 736x1280 2 cyclists, 8.4ms
Speed: 5.2ms preprocess, 8.4ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0433.png: 736x1280 (no detections), 7.7ms
Speed: 5.6ms preprocess, 7.7ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0456.png: 736x1280 (no detections), 7.5ms
Speed: 5.0ms preprocess, 7.5ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0369.png: 736x1280 1 cyclist, 7.8ms
Speed: 4.9ms preprocess, 7.8ms inference, 1.5ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0470.png: 736x1280 (no detections), 7.5ms
Speed: 5.0ms preprocess, 7.5ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0095.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.6ms preprocess, 7.4ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0454.png: 736x1280 (no detections), 6.9ms
Speed: 4.5ms preprocess, 6.9ms inference, 0.7ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0198.png: 736x1280 2 cyclists, 6.9ms
Speed: 4.6ms preprocess, 6.9ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0494.png: 736x1280 (no detections), 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0126.png: 736x1280 2 cyclists, 6.8ms
Speed: 4.5ms preprocess, 6.8ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0099.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.7ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0214.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0417.png: 736x1280 1 cyclist, 6.9ms
Speed: 4.6ms preprocess, 6.9ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0167.png: 736x1280 2 cyclists, 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0489.png: 736x1280 (no detections), 7.6ms
Speed: 4.6ms preprocess, 7.6ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0019.png: 736x1280 (no detections), 6.8ms
Speed: 4.5ms preprocess, 6.8ms inference, 0.5ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0316.png: 736x1280 1 cyclist, 6.8ms
Speed: 4.5ms preprocess, 6.8ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0468.png: 736x1280 (no detections), 7.2ms
Speed: 4.8ms preprocess, 7.2ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0480.png: 736x1280 (no detections), 7.3ms
Speed: 4.7ms preprocess, 7.3ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0068.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0064.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0191.png: 736x1280 2 cyclists, 6.9ms
Speed: 4.6ms preprocess, 6.9ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0162.png: 736x1280 2 cyclists, 6.8ms
Speed: 4.6ms preprocess, 6.8ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0475.png: 736x1280 (no detections), 7.5ms
Speed: 4.7ms preprocess, 7.5ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0359.png: 736x1280 1 cyclist, 8.5ms
Speed: 5.1ms preprocess, 8.5ms inference, 1.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0298.png: 736x1280 (no detections), 10.7ms
Speed: 7.0ms preprocess, 10.7ms inference, 0.8ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0152.png: 736x1280 2 cyclists, 7.2ms
Speed: 4.8ms preprocess, 7.2ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0273.png: 736x1280 1 cyclist, 7.5ms
Speed: 4.8ms preprocess, 7.5ms inference, 1.4ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0015.png: 736x1280 (no detections), 7.5ms
Speed: 5.0ms preprocess, 7.5ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0230.png: 736x1280 1 cyclist, 7.6ms
Speed: 4.8ms preprocess, 7.6ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0006.png: 736x1280 (no detections), 7.3ms
Speed: 4.7ms preprocess, 7.3ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0416.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0288.png: 736x1280 (no detections), 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0287.png: 736x1280 (no detections), 7.4ms
Speed: 4.8ms preprocess, 7.4ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0213.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.5ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0073.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.5ms preprocess, 7.1ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0320.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.8ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0028.png: 736x1280 (no detections), 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0420.png: 736x1280 (no detections), 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0407.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.5ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0463.png: 736x1280 (no detections), 7.0ms
Speed: 4.5ms preprocess, 7.0ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0008.png: 736x1280 (no detections), 10.3ms
Speed: 6.9ms preprocess, 10.3ms inference, 0.7ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0023.png: 736x1280 (no detections), 8.3ms
Speed: 6.8ms preprocess, 8.3ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0336.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0437.png: 736x1280 (no detections), 10.1ms
Speed: 6.7ms preprocess, 10.1ms inference, 0.7ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0003.png: 736x1280 (no detections), 7.6ms
Speed: 4.7ms preprocess, 7.6ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0074.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.6ms preprocess, 7.3ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0335.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.7ms preprocess, 7.4ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0485.png: 736x1280 (no detections), 8.0ms
Speed: 4.9ms preprocess, 8.0ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0383.png: 736x1280 (no detections), 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0031.png: 736x1280 (no detections), 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0039.png: 736x1280 1 cyclist, 8.7ms
Speed: 5.1ms preprocess, 8.7ms inference, 1.5ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0001.png: 736x1280 (no detections), 8.3ms
Speed: 4.9ms preprocess, 8.3ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0168.png: 736x1280 2 cyclists, 7.6ms
Speed: 4.8ms preprocess, 7.6ms inference, 1.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0069.png: 736x1280 1 cyclist, 10.3ms
Speed: 6.9ms preprocess, 10.3ms inference, 1.8ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0429.png: 736x1280 (no detections), 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0450.png: 736x1280 (no detections), 7.0ms
Speed: 4.7ms preprocess, 7.0ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0113.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0021.png: 736x1280 (no detections), 7.6ms
Speed: 4.6ms preprocess, 7.6ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0428.png: 736x1280 (no detections), 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0275.png: 736x1280 (no detections), 7.3ms
Speed: 4.9ms preprocess, 7.3ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0265.png: 736x1280 (no detections), 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0084.png: 736x1280 1 cyclist, 6.9ms
Speed: 4.5ms preprocess, 6.9ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0248.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 1.4ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0392.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0358.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0045.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0351.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0195.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0138.png: 736x1280 2 cyclists, 7.9ms
Speed: 5.1ms preprocess, 7.9ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0267.png: 736x1280 (no detections), 8.3ms
Speed: 5.0ms preprocess, 8.3ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0426.png: 736x1280 (no detections), 7.7ms
Speed: 4.7ms preprocess, 7.7ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0304.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.7ms preprocess, 7.3ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0418.png: 736x1280 (no detections), 7.7ms
Speed: 6.1ms preprocess, 7.7ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0449.png: 736x1280 (no detections), 7.7ms
Speed: 5.4ms preprocess, 7.7ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0055.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.8ms preprocess, 7.3ms inference, 1.4ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0161.png: 736x1280 2 cyclists, 7.1ms
Speed: 6.8ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0211.png: 736x1280 1 cyclist, 9.2ms
Speed: 5.2ms preprocess, 9.2ms inference, 1.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0442.png: 736x1280 (no detections), 7.5ms
Speed: 4.9ms preprocess, 7.5ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0037.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.5ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0226.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.5ms preprocess, 7.4ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0005.png: 736x1280 (no detections), 7.5ms
Speed: 4.8ms preprocess, 7.5ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0325.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0222.png: 736x1280 1 cyclist, 8.4ms
Speed: 4.6ms preprocess, 8.4ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0147.png: 736x1280 2 cyclists, 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0282.png: 736x1280 (no detections), 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0111.png: 736x1280 1 cyclist, 6.9ms
Speed: 4.6ms preprocess, 6.9ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0125.png: 736x1280 2 cyclists, 7.1ms
Speed: 4.9ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0310.png: 736x1280 (no detections), 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0457.png: 736x1280 (no detections), 6.9ms
Speed: 4.6ms preprocess, 6.9ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0474.png: 736x1280 (no detections), 7.5ms
Speed: 4.7ms preprocess, 7.5ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0337.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0346.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0327.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.9ms preprocess, 7.4ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0295.png: 736x1280 (no detections), 7.2ms
Speed: 6.7ms preprocess, 7.2ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0002.png: 736x1280 (no detections), 7.5ms
Speed: 4.7ms preprocess, 7.5ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0017.png: 736x1280 (no detections), 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0356.png: 736x1280 1 cyclist, 8.4ms
Speed: 4.9ms preprocess, 8.4ms inference, 1.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0184.png: 736x1280 2 cyclists, 7.3ms
Speed: 4.8ms preprocess, 7.3ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0134.png: 736x1280 2 cyclists, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0231.png: 736x1280 (no detections), 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0232.png: 736x1280 1 cyclist, 7.8ms
Speed: 4.8ms preprocess, 7.8ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0408.png: 736x1280 (no detections), 7.5ms
Speed: 4.8ms preprocess, 7.5ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0434.png: 736x1280 (no detections), 7.5ms
Speed: 4.8ms preprocess, 7.5ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0339.png: 736x1280 1 cyclist, 7.7ms
Speed: 4.7ms preprocess, 7.7ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0016.png: 736x1280 (no detections), 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0423.png: 736x1280 (no detections), 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0319.png: 736x1280 1 cyclist, 8.2ms
Speed: 4.9ms preprocess, 8.2ms inference, 1.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0079.png: 736x1280 1 cyclist, 9.9ms
Speed: 7.1ms preprocess, 9.9ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0284.png: 736x1280 (no detections), 7.9ms
Speed: 5.1ms preprocess, 7.9ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0444.png: 736x1280 (no detections), 8.0ms
Speed: 5.2ms preprocess, 8.0ms inference, 0.7ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0250.png: 736x1280 1 cyclist, 8.3ms
Speed: 5.0ms preprocess, 8.3ms inference, 1.8ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0254.png: 736x1280 1 cyclist, 7.7ms
Speed: 5.0ms preprocess, 7.7ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0406.png: 736x1280 1 cyclist, 7.9ms
Speed: 5.0ms preprocess, 7.9ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0293.png: 736x1280 (no detections), 7.6ms
Speed: 4.9ms preprocess, 7.6ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0053.png: 736x1280 1 cyclist, 8.6ms
Speed: 4.8ms preprocess, 8.6ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0430.png: 736x1280 (no detections), 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0004.png: 736x1280 (no detections), 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0201.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.5ms preprocess, 7.1ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0261.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.7ms preprocess, 7.4ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0260.png: 736x1280 1 cyclist, 7.8ms
Speed: 5.0ms preprocess, 7.8ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0100.png: 736x1280 1 cyclist, 7.6ms
Speed: 4.7ms preprocess, 7.6ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0249.png: 736x1280 1 cyclist, 7.6ms
Speed: 4.7ms preprocess, 7.6ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0381.png: 736x1280 1 cyclist, 8.3ms
Speed: 5.0ms preprocess, 8.3ms inference, 1.5ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0263.png: 736x1280 1 cyclist, 10.0ms
Speed: 5.0ms preprocess, 10.0ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0224.png: 736x1280 1 cyclist, 7.6ms
Speed: 4.8ms preprocess, 7.6ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0149.png: 736x1280 2 cyclists, 7.3ms
Speed: 4.9ms preprocess, 7.3ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0052.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.7ms preprocess, 7.4ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0306.png: 736x1280 1 cyclist, 7.7ms
Speed: 4.9ms preprocess, 7.7ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0308.png: 736x1280 (no detections), 7.5ms
Speed: 4.9ms preprocess, 7.5ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0246.png: 736x1280 1 cyclist, 7.6ms
Speed: 4.9ms preprocess, 7.6ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0277.png: 736x1280 (no detections), 8.1ms
Speed: 5.1ms preprocess, 8.1ms inference, 0.8ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0032.png: 736x1280 1 cyclist, 7.6ms
Speed: 5.1ms preprocess, 7.6ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0483.png: 736x1280 (no detections), 10.5ms
Speed: 7.0ms preprocess, 10.5ms inference, 0.8ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0217.png: 736x1280 1 cyclist, 10.5ms
Speed: 7.1ms preprocess, 10.5ms inference, 1.9ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0187.png: 736x1280 2 cyclists, 7.6ms
Speed: 5.0ms preprocess, 7.6ms inference, 1.4ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0077.png: 736x1280 1 cyclist, 7.5ms
Speed: 4.9ms preprocess, 7.5ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0435.png: 736x1280 (no detections), 7.4ms
Speed: 4.7ms preprocess, 7.4ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0043.png: 736x1280 1 cyclist, 7.5ms
Speed: 5.2ms preprocess, 7.5ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0114.png: 736x1280 1 cyclist, 10.4ms
Speed: 7.0ms preprocess, 10.4ms inference, 1.9ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0397.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.9ms preprocess, 7.3ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0096.png: 736x1280 1 cyclist, 7.6ms
Speed: 4.8ms preprocess, 7.6ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0481.png: 736x1280 (no detections), 8.6ms
Speed: 6.7ms preprocess, 8.6ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0244.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.7ms preprocess, 7.3ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0393.png: 736x1280 1 cyclist, 8.9ms
Speed: 4.9ms preprocess, 8.9ms inference, 1.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0228.png: 736x1280 1 cyclist, 12.5ms
Speed: 4.9ms preprocess, 12.5ms inference, 1.9ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0131.png: 736x1280 2 cyclists, 7.7ms
Speed: 4.9ms preprocess, 7.7ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0368.png: 736x1280 1 cyclist, 8.8ms
Speed: 6.9ms preprocess, 8.8ms inference, 1.4ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0014.png: 736x1280 (no detections), 8.3ms
Speed: 4.9ms preprocess, 8.3ms inference, 0.7ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0364.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.8ms preprocess, 7.3ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0345.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0034.png: 736x1280 (no detections), 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0089.png: 736x1280 1 cyclist, 7.7ms
Speed: 4.8ms preprocess, 7.7ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0296.png: 736x1280 (no detections), 7.0ms
Speed: 4.5ms preprocess, 7.0ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0405.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.7ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0127.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0447.png: 736x1280 (no detections), 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0137.png: 736x1280 2 cyclists, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0102.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.8ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0183.png: 736x1280 2 cyclists, 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0458.png: 736x1280 (no detections), 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0324.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.5ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0172.png: 736x1280 2 cyclists, 7.3ms
Speed: 4.8ms preprocess, 7.3ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0357.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0459.png: 736x1280 (no detections), 7.4ms
Speed: 4.7ms preprocess, 7.4ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0210.png: 736x1280 1 cyclist, 7.6ms
Speed: 4.6ms preprocess, 7.6ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0056.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.7ms preprocess, 7.3ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0165.png: 736x1280 2 cyclists, 7.3ms
Speed: 4.7ms preprocess, 7.3ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0307.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.7ms preprocess, 7.3ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0496.png: 736x1280 (no detections), 7.4ms
Speed: 4.7ms preprocess, 7.4ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0276.png: 736x1280 (no detections), 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 0.7ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0285.png: 736x1280 (no detections), 7.0ms
Speed: 4.7ms preprocess, 7.0ms inference, 0.6ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0487.png: 736x1280 (no detections), 7.9ms
Speed: 4.9ms preprocess, 7.9ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0482.png: 736x1280 (no detections), 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0245.png: 736x1280 1 cyclist, 7.9ms
Speed: 5.0ms preprocess, 7.9ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0446.png: 736x1280 (no detections), 7.6ms
Speed: 5.1ms preprocess, 7.6ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0391.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.6ms preprocess, 7.3ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0022.png: 736x1280 (no detections), 7.3ms
Speed: 4.8ms preprocess, 7.3ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0142.png: 736x1280 2 cyclists, 7.4ms
Speed: 4.8ms preprocess, 7.4ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0219.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.6ms preprocess, 7.3ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0258.png: 736x1280 1 cyclist, 6.9ms
Speed: 4.6ms preprocess, 6.9ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0122.png: 736x1280 2 cyclists, 6.9ms
Speed: 4.6ms preprocess, 6.9ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0348.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0384.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.8ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0396.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0189.png: 736x1280 2 cyclists, 10.8ms
Speed: 6.8ms preprocess, 10.8ms inference, 1.8ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0366.png: 736x1280 1 cyclist, 10.6ms
Speed: 7.2ms preprocess, 10.6ms inference, 1.8ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0438.png: 736x1280 (no detections), 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0400.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.5ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0018.png: 736x1280 (no detections), 7.6ms
Speed: 4.7ms preprocess, 7.6ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0086.png: 736x1280 1 cyclist, 7.4ms
Speed: 5.0ms preprocess, 7.4ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0205.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0330.png: 736x1280 1 cyclist, 7.6ms
Speed: 4.7ms preprocess, 7.6ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0365.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.7ms preprocess, 7.4ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0239.png: 736x1280 (no detections), 10.2ms
Speed: 5.5ms preprocess, 10.2ms inference, 0.7ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0322.png: 736x1280 1 cyclist, 7.6ms
Speed: 4.7ms preprocess, 7.6ms inference, 1.5ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0490.png: 736x1280 (no detections), 10.3ms
Speed: 7.0ms preprocess, 10.3ms inference, 0.8ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0192.png: 736x1280 2 cyclists, 7.9ms
Speed: 5.1ms preprocess, 7.9ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0081.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0128.png: 736x1280 2 cyclists, 7.0ms
Speed: 4.5ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0116.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.7ms preprocess, 7.3ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0118.png: 736x1280 1 cyclist, 7.6ms
Speed: 5.0ms preprocess, 7.6ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0200.png: 736x1280 1 cyclist, 10.1ms
Speed: 6.8ms preprocess, 10.1ms inference, 1.7ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0398.png: 736x1280 1 cyclist, 11.1ms
Speed: 7.0ms preprocess, 11.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0066.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.6ms preprocess, 7.3ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0062.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.5ms preprocess, 7.1ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0133.png: 736x1280 2 cyclists, 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0289.png: 736x1280 (no detections), 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 0.6ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0067.png: 736x1280 1 cyclist, 10.4ms
Speed: 6.7ms preprocess, 10.4ms inference, 1.8ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0042.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.6ms preprocess, 7.3ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0290.png: 736x1280 (no detections), 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0464.png: 736x1280 (no detections), 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0141.png: 736x1280 2 cyclists, 8.7ms
Speed: 6.9ms preprocess, 8.7ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0315.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.6ms preprocess, 7.3ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0262.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.5ms preprocess, 7.3ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0253.png: 736x1280 1 cyclist, 8.4ms
Speed: 5.0ms preprocess, 8.4ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0379.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0352.png: 736x1280 1 cyclist, 9.0ms
Speed: 6.1ms preprocess, 9.0ms inference, 1.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0467.png: 736x1280 (no detections), 9.3ms
Speed: 7.4ms preprocess, 9.3ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0387.png: 736x1280 1 cyclist, 7.7ms
Speed: 4.9ms preprocess, 7.7ms inference, 1.5ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0362.png: 736x1280 1 cyclist, 7.5ms
Speed: 4.9ms preprocess, 7.5ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0385.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.6ms preprocess, 7.3ms inference, 1.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0120.png: 736x1280 2 cyclists, 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0278.png: 736x1280 (no detections), 7.4ms
Speed: 4.6ms preprocess, 7.4ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0105.png: 736x1280 1 cyclist, 8.6ms
Speed: 4.7ms preprocess, 8.6ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0119.png: 736x1280 2 cyclists, 7.1ms
Speed: 4.8ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0159.png: 736x1280 2 cyclists, 7.2ms
Speed: 6.9ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0291.png: 736x1280 (no detections), 7.0ms
Speed: 4.7ms preprocess, 7.0ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0264.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.8ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0144.png: 736x1280 2 cyclists, 7.2ms
Speed: 4.8ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0354.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.7ms preprocess, 7.3ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0171.png: 736x1280 2 cyclists, 8.0ms
Speed: 4.8ms preprocess, 8.0ms inference, 1.3ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0266.png: 736x1280 1 cyclist, 8.1ms
Speed: 4.6ms preprocess, 8.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0313.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.9ms preprocess, 7.4ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0394.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0302.png: 736x1280 (no detections), 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0179.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0123.png: 736x1280 2 cyclists, 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0109.png: 736x1280 1 cyclist, 10.1ms
Speed: 6.8ms preprocess, 10.1ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0465.png: 736x1280 (no detections), 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0377.png: 736x1280 (no detections), 9.7ms
Speed: 5.4ms preprocess, 9.7ms inference, 0.8ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0154.png: 736x1280 2 cyclists, 8.1ms
Speed: 5.3ms preprocess, 8.1ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0272.png: 736x1280 (no detections), 9.9ms
Speed: 5.7ms preprocess, 9.9ms inference, 0.8ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0078.png: 736x1280 1 cyclist, 7.8ms
Speed: 5.1ms preprocess, 7.8ms inference, 1.5ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0071.png: 736x1280 1 cyclist, 7.7ms
Speed: 4.9ms preprocess, 7.7ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0445.png: 736x1280 (no detections), 7.9ms
Speed: 5.1ms preprocess, 7.9ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0395.png: 736x1280 1 cyclist, 7.6ms
Speed: 4.8ms preprocess, 7.6ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0431.png: 736x1280 (no detections), 8.0ms
Speed: 4.9ms preprocess, 8.0ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0300.png: 736x1280 (no detections), 8.0ms
Speed: 5.0ms preprocess, 8.0ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0180.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.8ms preprocess, 7.4ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0085.png: 736x1280 1 cyclist, 7.6ms
Speed: 5.0ms preprocess, 7.6ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0110.png: 736x1280 1 cyclist, 7.7ms
Speed: 4.9ms preprocess, 7.7ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0353.png: 736x1280 (no detections), 7.6ms
Speed: 4.8ms preprocess, 7.6ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0283.png: 736x1280 (no detections), 7.5ms
Speed: 4.9ms preprocess, 7.5ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0225.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.9ms preprocess, 7.4ms inference, 1.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0375.png: 736x1280 1 cyclist, 7.5ms
Speed: 4.8ms preprocess, 7.5ms inference, 1.5ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0237.png: 736x1280 (no detections), 7.4ms
Speed: 4.8ms preprocess, 7.4ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0360.png: 736x1280 (no detections), 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0101.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0164.png: 736x1280 2 cyclists, 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0166.png: 736x1280 2 cyclists, 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0007.png: 736x1280 (no detections), 7.0ms
Speed: 4.5ms preprocess, 7.0ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0054.png: 736x1280 1 cyclist, 7.6ms
Speed: 4.7ms preprocess, 7.6ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0334.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.9ms preprocess, 7.2ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0193.png: 736x1280 2 cyclists, 7.4ms
Speed: 4.7ms preprocess, 7.4ms inference, 2.0ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0373.png: 736x1280 1 cyclist, 8.6ms
Speed: 5.2ms preprocess, 8.6ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0367.png: 736x1280 1 cyclist, 7.5ms
Speed: 4.7ms preprocess, 7.5ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0174.png: 736x1280 2 cyclists, 7.6ms
Speed: 5.0ms preprocess, 7.6ms inference, 1.4ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0436.png: 736x1280 (no detections), 8.7ms
Speed: 4.9ms preprocess, 8.7ms inference, 0.7ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0271.png: 736x1280 (no detections), 8.7ms
Speed: 5.1ms preprocess, 8.7ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0448.png: 736x1280 (no detections), 7.8ms
Speed: 4.8ms preprocess, 7.8ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0135.png: 736x1280 2 cyclists, 7.6ms
Speed: 4.7ms preprocess, 7.6ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0484.png: 736x1280 (no detections), 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0424.png: 736x1280 (no detections), 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0097.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0090.png: 736x1280 1 cyclist, 9.2ms
Speed: 4.7ms preprocess, 9.2ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0329.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0173.png: 736x1280 2 cyclists, 7.0ms
Speed: 4.5ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0035.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0063.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.7ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0440.png: 736x1280 (no detections), 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0208.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.7ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0058.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.8ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0399.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0098.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.5ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0202.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.6ms preprocess, 7.3ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0388.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.5ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0371.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.6ms preprocess, 7.4ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0033.png: 736x1280 (no detections), 7.3ms
Speed: 4.6ms preprocess, 7.3ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0370.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.7ms preprocess, 7.4ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0235.png: 736x1280 1 cyclist, 9.6ms
Speed: 4.7ms preprocess, 9.6ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0145.png: 736x1280 2 cyclists, 8.0ms
Speed: 4.7ms preprocess, 8.0ms inference, 1.5ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0390.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.8ms preprocess, 7.4ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0477.png: 736x1280 (no detections), 8.4ms
Speed: 5.0ms preprocess, 8.4ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0103.png: 736x1280 1 cyclist, 7.7ms
Speed: 4.9ms preprocess, 7.7ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0326.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0460.png: 736x1280 (no detections), 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0309.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.5ms preprocess, 7.0ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0227.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0497.png: 736x1280 (no detections), 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0347.png: 736x1280 1 cyclist, 6.9ms
Speed: 5.2ms preprocess, 6.9ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0318.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0140.png: 736x1280 2 cyclists, 7.6ms
Speed: 4.9ms preprocess, 7.6ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0196.png: 736x1280 2 cyclists, 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 1.4ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0376.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.5ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0413.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.7ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0363.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.8ms preprocess, 7.1ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0270.png: 736x1280 (no detections), 7.1ms
Speed: 4.8ms preprocess, 7.1ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0236.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0280.png: 736x1280 (no detections), 7.1ms
Speed: 4.5ms preprocess, 7.1ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0185.png: 736x1280 2 cyclists, 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0139.png: 736x1280 2 cyclists, 7.3ms
Speed: 4.8ms preprocess, 7.3ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0439.png: 736x1280 (no detections), 7.4ms
Speed: 4.7ms preprocess, 7.4ms inference, 0.7ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0343.png: 736x1280 1 cyclist, 8.2ms
Speed: 4.9ms preprocess, 8.2ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0472.png: 736x1280 (no detections), 8.5ms
Speed: 5.1ms preprocess, 8.5ms inference, 0.7ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0462.png: 736x1280 (no detections), 8.2ms
Speed: 5.0ms preprocess, 8.2ms inference, 0.6ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0157.png: 736x1280 2 cyclists, 9.4ms
Speed: 5.0ms preprocess, 9.4ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0238.png: 736x1280 (no detections), 7.5ms
Speed: 4.9ms preprocess, 7.5ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0075.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.9ms preprocess, 7.4ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0321.png: 736x1280 1 cyclist, 7.6ms
Speed: 4.7ms preprocess, 7.6ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0461.png: 736x1280 (no detections), 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0425.png: 736x1280 (no detections), 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0181.png: 736x1280 2 cyclists, 7.3ms
Speed: 4.6ms preprocess, 7.3ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0305.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.7ms preprocess, 7.3ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0070.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.5ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0076.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0038.png: 736x1280 (no detections), 7.5ms
Speed: 4.7ms preprocess, 7.5ms inference, 0.7ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0251.png: 736x1280 1 cyclist, 7.6ms
Speed: 4.5ms preprocess, 7.6ms inference, 1.3ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0150.png: 736x1280 2 cyclists, 7.0ms
Speed: 4.5ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0333.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0057.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.5ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0106.png: 736x1280 1 cyclist, 7.9ms
Speed: 5.6ms preprocess, 7.9ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0492.png: 736x1280 (no detections), 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0402.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.5ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0409.png: 736x1280 (no detections), 7.0ms
Speed: 4.5ms preprocess, 7.0ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0259.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.7ms preprocess, 7.4ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0414.png: 736x1280 (no detections), 7.5ms
Speed: 4.6ms preprocess, 7.5ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0186.png: 736x1280 2 cyclists, 7.5ms
Speed: 4.7ms preprocess, 7.5ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0479.png: 736x1280 (no detections), 7.6ms
Speed: 4.8ms preprocess, 7.6ms inference, 0.7ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0453.png: 736x1280 (no detections), 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 0.6ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0242.png: 736x1280 (no detections), 8.8ms
Speed: 4.9ms preprocess, 8.8ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0094.png: 736x1280 1 cyclist, 9.9ms
Speed: 5.6ms preprocess, 9.9ms inference, 1.8ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0182.png: 736x1280 2 cyclists, 8.2ms
Speed: 6.2ms preprocess, 8.2ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0117.png: 736x1280 1 cyclist, 8.5ms
Speed: 5.6ms preprocess, 8.5ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0088.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.8ms preprocess, 7.2ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0170.png: 736x1280 2 cyclists, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0281.png: 736x1280 (no detections), 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0455.png: 736x1280 (no detections), 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0093.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.5ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0386.png: 736x1280 1 cyclist, 8.0ms
Speed: 4.6ms preprocess, 8.0ms inference, 1.7ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0026.png: 736x1280 (no detections), 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0243.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 1.4ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0374.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0012.png: 736x1280 (no detections), 7.1ms
Speed: 4.5ms preprocess, 7.1ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0469.png: 736x1280 (no detections), 7.7ms
Speed: 4.9ms preprocess, 7.7ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0050.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0372.png: 736x1280 1 cyclist, 7.5ms
Speed: 5.0ms preprocess, 7.5ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0297.png: 736x1280 (no detections), 7.4ms
Speed: 4.8ms preprocess, 7.4ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0422.png: 736x1280 (no detections), 7.2ms
Speed: 4.5ms preprocess, 7.2ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0010.png: 736x1280 (no detections), 7.4ms
Speed: 4.6ms preprocess, 7.4ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0206.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0478.png: 736x1280 (no detections), 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0286.png: 736x1280 (no detections), 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0493.png: 736x1280 (no detections), 8.5ms
Speed: 4.8ms preprocess, 8.5ms inference, 0.6ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0121.png: 736x1280 2 cyclists, 7.1ms
Speed: 4.8ms preprocess, 7.1ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0279.png: 736x1280 (no detections), 7.7ms
Speed: 4.9ms preprocess, 7.7ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0204.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.7ms preprocess, 7.4ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0169.png: 736x1280 2 cyclists, 7.6ms
Speed: 4.7ms preprocess, 7.6ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0025.png: 736x1280 (no detections), 7.4ms
Speed: 4.7ms preprocess, 7.4ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0299.png: 736x1280 (no detections), 7.3ms
Speed: 4.7ms preprocess, 7.3ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0146.png: 736x1280 2 cyclists, 7.2ms
Speed: 4.5ms preprocess, 7.2ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0411.png: 736x1280 (no detections), 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0153.png: 736x1280 2 cyclists, 7.6ms
Speed: 4.5ms preprocess, 7.6ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0269.png: 736x1280 (no detections), 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0132.png: 736x1280 2 cyclists, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0256.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0044.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.6ms preprocess, 7.3ms inference, 1.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0255.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0491.png: 736x1280 (no detections), 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0314.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.5ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0221.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.5ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0190.png: 736x1280 2 cyclists, 7.3ms
Speed: 4.7ms preprocess, 7.3ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0036.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.9ms preprocess, 7.4ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0486.png: 736x1280 (no detections), 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0009.png: 736x1280 (no detections), 7.5ms
Speed: 5.0ms preprocess, 7.5ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0030.png: 736x1280 (no detections), 7.4ms
Speed: 5.0ms preprocess, 7.4ms inference, 0.7ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0241.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.8ms preprocess, 7.3ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0342.png: 736x1280 1 cyclist, 9.7ms
Speed: 4.8ms preprocess, 9.7ms inference, 1.5ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0471.png: 736x1280 (no detections), 8.8ms
Speed: 5.4ms preprocess, 8.8ms inference, 0.7ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0046.png: 736x1280 1 cyclist, 7.5ms
Speed: 4.8ms preprocess, 7.5ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0209.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.7ms preprocess, 7.4ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0060.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.8ms preprocess, 7.4ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0441.png: 736x1280 (no detections), 7.8ms
Speed: 4.8ms preprocess, 7.8ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0317.png: 736x1280 1 cyclist, 7.9ms
Speed: 4.9ms preprocess, 7.9ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0051.png: 736x1280 1 cyclist, 7.5ms
Speed: 4.7ms preprocess, 7.5ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0412.png: 736x1280 1 cyclist, 7.9ms
Speed: 4.8ms preprocess, 7.9ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0087.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.6ms preprocess, 7.3ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0194.png: 736x1280 2 cyclists, 7.3ms
Speed: 4.6ms preprocess, 7.3ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0294.png: 736x1280 (no detections), 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 0.7ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0158.png: 736x1280 2 cyclists, 8.4ms
Speed: 4.5ms preprocess, 8.4ms inference, 1.4ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0048.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0011.png: 736x1280 (no detections), 7.6ms
Speed: 4.7ms preprocess, 7.6ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0082.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.8ms preprocess, 7.4ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0229.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0427.png: 736x1280 (no detections), 7.5ms
Speed: 4.9ms preprocess, 7.5ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0178.png: 736x1280 2 cyclists, 7.3ms
Speed: 4.8ms preprocess, 7.3ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0355.png: 736x1280 1 cyclist, 7.5ms
Speed: 5.1ms preprocess, 7.5ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0452.png: 736x1280 (no detections), 7.5ms
Speed: 4.9ms preprocess, 7.5ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0432.png: 736x1280 (no detections), 7.4ms
Speed: 4.8ms preprocess, 7.4ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0112.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.7ms preprocess, 7.3ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0029.png: 736x1280 (no detections), 7.3ms
Speed: 4.8ms preprocess, 7.3ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0443.png: 736x1280 (no detections), 7.8ms
Speed: 5.0ms preprocess, 7.8ms inference, 0.7ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0040.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.9ms preprocess, 7.4ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0233.png: 736x1280 (no detections), 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0124.png: 736x1280 2 cyclists, 7.7ms
Speed: 5.2ms preprocess, 7.7ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0177.png: 736x1280 1 cyclist, 9.9ms
Speed: 5.5ms preprocess, 9.9ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0188.png: 736x1280 2 cyclists, 7.6ms
Speed: 5.1ms preprocess, 7.6ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0020.png: 736x1280 (no detections), 8.4ms
Speed: 4.9ms preprocess, 8.4ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0495.png: 736x1280 (no detections), 9.3ms
Speed: 5.6ms preprocess, 9.3ms inference, 0.8ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0130.png: 736x1280 2 cyclists, 7.5ms
Speed: 4.9ms preprocess, 7.5ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0041.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.8ms preprocess, 7.4ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0349.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0403.png: 736x1280 1 cyclist, 6.9ms
Speed: 4.5ms preprocess, 6.9ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0220.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0061.png: 736x1280 1 cyclist, 7.5ms
Speed: 4.6ms preprocess, 7.5ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0083.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0212.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.5ms preprocess, 7.1ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0473.png: 736x1280 (no detections), 6.9ms
Speed: 4.5ms preprocess, 6.9ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0047.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.8ms preprocess, 7.3ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0488.png: 736x1280 (no detections), 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0065.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0223.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.9ms preprocess, 7.3ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0389.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.7ms preprocess, 7.3ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0419.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0404.png: 736x1280 1 cyclist, 7.7ms
Speed: 5.0ms preprocess, 7.7ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0104.png: 736x1280 1 cyclist, 7.8ms
Speed: 4.8ms preprocess, 7.8ms inference, 1.4ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0378.png: 736x1280 1 cyclist, 7.5ms
Speed: 4.8ms preprocess, 7.5ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0344.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.7ms preprocess, 7.4ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0301.png: 736x1280 (no detections), 9.3ms
Speed: 5.2ms preprocess, 9.3ms inference, 0.7ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0332.png: 736x1280 1 cyclist, 9.3ms
Speed: 5.5ms preprocess, 9.3ms inference, 1.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0380.png: 736x1280 1 cyclist, 9.1ms
Speed: 5.5ms preprocess, 9.1ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0361.png: 736x1280 1 cyclist, 7.5ms
Speed: 4.8ms preprocess, 7.5ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0341.png: 736x1280 1 cyclist, 7.7ms
Speed: 4.9ms preprocess, 7.7ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0155.png: 736x1280 2 cyclists, 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0312.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0148.png: 736x1280 2 cyclists, 7.1ms
Speed: 4.5ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0175.png: 736x1280 1 cyclist, 7.5ms
Speed: 5.1ms preprocess, 7.5ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0215.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0323.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0240.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.7ms preprocess, 7.4ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0115.png: 736x1280 2 cyclists, 7.0ms
Speed: 4.5ms preprocess, 7.0ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0292.png: 736x1280 (no detections), 7.0ms
Speed: 4.5ms preprocess, 7.0ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0091.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0338.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0024.png: 736x1280 (no detections), 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0421.png: 736x1280 (no detections), 7.2ms
Speed: 4.8ms preprocess, 7.2ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0092.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0156.png: 736x1280 2 cyclists, 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0160.png: 736x1280 2 cyclists, 7.3ms
Speed: 4.9ms preprocess, 7.3ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0151.png: 736x1280 2 cyclists, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0350.png: 736x1280 1 cyclist, 7.2ms
Speed: 5.0ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0382.png: 736x1280 1 cyclist, 7.2ms
Speed: 5.7ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0268.png: 736x1280 (no detections), 7.5ms
Speed: 5.2ms preprocess, 7.5ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0049.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.9ms preprocess, 7.4ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0252.png: 736x1280 1 cyclist, 7.5ms
Speed: 4.8ms preprocess, 7.5ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0013.png: 736x1280 (no detections), 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0197.png: 736x1280 2 cyclists, 7.2ms
Speed: 4.8ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0303.png: 736x1280 (no detections), 7.9ms
Speed: 4.8ms preprocess, 7.9ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0080.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0000.png: 736x1280 (no detections), 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0257.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.5ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0072.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.6ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0199.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.5ms preprocess, 7.0ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0311.png: 736x1280 1 cyclist, 7.0ms
Speed: 4.7ms preprocess, 7.0ms inference, 1.2ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0107.png: 736x1280 1 cyclist, 7.2ms
Speed: 4.6ms preprocess, 7.2ms inference, 1.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0247.png: 736x1280 1 cyclist, 7.3ms
Speed: 4.7ms preprocess, 7.3ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0027.png: 736x1280 (no detections), 7.0ms
Speed: 4.7ms preprocess, 7.0ms inference, 0.5ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0451.png: 736x1280 (no detections), 7.1ms
Speed: 4.8ms preprocess, 7.1ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0129.png: 736x1280 2 cyclists, 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 1.4ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0176.png: 736x1280 2 cyclists, 7.2ms
Speed: 4.7ms preprocess, 7.2ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0218.png: 736x1280 1 cyclist, 7.4ms
Speed: 4.6ms preprocess, 7.4ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0163.png: 736x1280 2 cyclists, 7.3ms
Speed: 4.7ms preprocess, 7.3ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0331.png: 736x1280 (no detections), 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 0.6ms postprocess per image at shape
(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0401.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.7ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape

(1, 3, 736, 1280)

image 1/1 /content/video_frames/frame_0328.png: 736x1280 1 cyclist, 7.1ms
Speed: 4.6ms preprocess, 7.1ms inference, 1.3ms postprocess per image at shape
(1, 3, 736, 1280)

PDF export and other utils below

```
[18]: from google.colab import drive
drive.mount('/content/drive')
```

Mounted at /content/drive

```
[70]: import shutil

# Define source and destination paths
source_folder = "/content/runs"
destination_folder = "/content/drive/MyDrive/colab-runs"

# Create the destination folder if it doesn't exist
os.makedirs(destination_folder, exist_ok=True)

# Copy the folder and its contents
shutil.copytree(source_folder, destination_folder, dirs_exist_ok=True)
```

```
[70]: '/content/drive/MyDrive/colab-runs'
```

```
[27]: # Define source and destination paths for the 'splits' folder
source_splits_folder = "/content/splits"
destination_splits_folder = "/content/drive/MyDrive/colab-splits"
# Create the destination folder if it doesn't exist
os.makedirs(destination_splits_folder, exist_ok=True)

# Copy the 'splits' folder and its contents
shutil.copytree(source_splits_folder, destination_splits_folder,
               dirs_exist_ok=True)
```

```
[27]: '/content/drive/MyDrive/colab-splits'
```

```
[71]: destination_folder = "/content/drive/MyDrive/colab_521"

# Create the destination folder if it doesn't exist
os.makedirs(destination_folder, exist_ok=True)

# Copy video_frames and video_frames_labels
source_frames_folder = "/content/video_frames"
shutil.copytree(source_frames_folder, destination_folder, dirs_exist_ok=True)
```



```
source_labels_folder = "/content/video_frames_labels"
shutil.copytree(source_labels_folder, destination_folder, dirs_exist_ok=True)
```

```
[71]: '/content/drive/MyDrive/colab_521'
```

```
[56]: import locale

def getpreferredencoding(do_setlocale = True):
    return "UTF-8"

locale.getpreferredencoding = getpreferredencoding
!apt-get update
```

```
Get:1 https://developer.download.nvidia.com/compute/cuda/repos/ubuntu2204/x86_64
InRelease [1,581 B]
Get:2 https://developer.download.nvidia.com/compute/cuda/repos/ubuntu2204/x86_64
Packages [1,192 kB]
Get:3 https://cloud.r-project.org/bin/linux/ubuntu jammy-cran40/ InRelease
[3,626 B]
Get:4 http://security.ubuntu.com/ubuntu jammy-security InRelease [129 kB]
Hit:5 http://archive.ubuntu.com/ubuntu jammy InRelease
Get:6 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [128 kB]
Get:7 https://ppa.launchpadcontent.net/deadsnakes/ppa/ubuntu jammy InRelease
[18.1 kB]
Get:8 https://r2u.stat.illinois.edu/ubuntu jammy InRelease [6,555 B]
Hit:9 https://ppa.launchpadcontent.net/graphics-drivers/ppa/ubuntu jammy
InRelease
Hit:10 https://ppa.launchpadcontent.net/ubuntugis/ppa/ubuntu jammy InRelease
Get:11 https://r2u.stat.illinois.edu/ubuntu jammy/main amd64 Packages [2,626 kB]
Get:12 https://ppa.launchpadcontent.net/deadsnakes/ppa/ubuntu jammy/main amd64
Packages [32.9 kB]
Get:13 http://archive.ubuntu.com/ubuntu jammy-backports InRelease [127 kB]
Get:14 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages
[2,454 kB]
Get:15 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [2,738
kB]
Get:16 https://r2u.stat.illinois.edu/ubuntu jammy/main all Packages [8,531 kB]
Fetched 18.0 MB in 4s (4,134 kB/s)
Reading package lists... Done
W: Skipping acquire of configured file 'main/source/Sources' as repository
'https://r2u.stat.illinois.edu/ubuntu jammy InRelease' does not seem to provide
it (sources.list entry misspelt?)
```

```
[57]: !apt-get install texlive-xetex texlive-fonts-recommended texlive-latex-extra
      ↪pandoc inkscape
```

Reading package lists... Done

```

Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  aspell aspell-en dictionaries-common dvisvgm enchant-2 fig2dev fonts-droid-
  fallback fonts-lato
  fonts-lmodern fonts-noto-mono fonts-texgyre fonts-urw-base35 gawk ghostscript
  glib-networking
  glib-networking-common glib-networking-services gsettings-desktop-schemas
  gsfonts hunspell-en-us
  imagemagick imagemagick-6-common imagemagick-6.q16 lib2geom1.1.0 libapache-
  pom-java libaspell15
  libatkmm-1.6-1v5 libcairomm-1.0-1v5 libcdr-0.1-1 libcmark-gfm-
  extensions0.29.0.gfm.3
  libcmark-gfm0.29.0.gfm.3 libcommons-logging-java libcommons-parent-java
  libdbus-glib-1-2
  libdjvulibre-text libdjvulibre21 libenchant-2-2 libfftw3-double3 libfontbox-
  java libfontenc1
  libglibmm-2.4-1v5 libgs9 libgs9-common libgsl27 libgslcblas0 libgspell-1-2
  libgspell-1-common
  libgtkmm-3.0-1v5 libhunspell-1.7-0 libidn12 libijs-0.35 libimage-magick-perl
  libimage-magick-q16-perl libjbig2dec0 libjxr-tools libjxr0 libkpathsea6
  liblqr-1-0
  libmagick++-6.q16-8 libmagickcore-6.q16-6 libmagickcore-6.q16-6-extra
  libmagickwand-6.q16-6
  libnetpbm10 libpangomm-1.4-1v5 libpdfbox-java libpoppler-glib8 libpotrace0
  libproxy1v5
  libptexenc1 librevenge-0.0-0 librsvg2-common libruby3.0 libsigc++-2.0-0v5
  libsoup2.4-1
  libsoup2.4-common libsyntax2 libteckit0 libtexlua53 libtexluaajit2 libtext-
  iconv-perl
  libvisio-0.1-1 libwmf-0.2-7 libwmf-bin libwmflite-0.2-7 libwoff1
  libwpd-0.10-10 libwpg-0.3-3
  libzip-0-13 lmodern netpbm pandoc-data poppler-data preview-latex-style
  python3-bs4
  python3-chardet python3-html5lib python3-lxml python3-numpy python3-scour
  python3-soupsieve
  python3-webencodings rake ruby ruby-net-telnet ruby-rubygems ruby-webrick
  ruby-xmlrpc ruby3.0
  rubygems-integration session-migration tlutils teckit tex-common tex-gyre
  texlive-base
  texlive-binaries texlive-latex-base texlive-latex-recommended texlive-pictures
  texlive-plain-generic tipa xfonts-encodings xfonts-utils
Suggested packages:
  aspell-doc spellutils wordlist xfig fonts-noto fonts-freefont-otf | fonts-
  freefont-ttf gawk-doc
  ghostscript-x hunspell openoffice.org-hunspell | openoffice.org-core
  imagemagick-doc autotrace
  cups-bsd | lpr | lprng enscript gimp gnuplot grads hp2xx html2ps mplayer

```

```

povray radiance
  sane-utils ufw-batch dia inkscape-tutorials libsvg-perl pstoeedit
python3-uniconvertor
  libavalon-framework-java libcommons-logging-java-doc libexcalibur-logkit-java
liblog4j1.2-java
  libenchanted-2-voikko libfftw3-bin libfftw3-dev gsl-ref-psdoc | gsl-doc-pdf |
gsl-doc-info
  | gsl-ref-html libwmf-0.2-7-gtk texlive-luatex pandoc-citeproc context
wkhtmltopdf librsvg2-bin
  groff ghc nodejs php python libjs-mathjax libjs-katex citation-style-language-
styles
  poppler-utils fonts-japanese-mincho | fonts-ipafont-mincho fonts-japanese-
gothic
  | fonts-ipafont-gothic fonts-arphic-ukai fonts-arphic-uming fonts-nanum
python3-genshi
  python-lxml-doc python-numpy-doc python3-pytest ri ruby-dev bundler debhelper
perl-tk xpdf
  | pdf-viewer xzdec texlive-fonts-recommended-doc texlive-latex-base-doc
python3-pygments
  icc-profiles libfile-which-perl libspreadsheet-parseexcel-perl texlive-latex-
extra-doc
  texlive-latex-recommended-doc texlive-pstricks dot2tex prerex texlive-
pictures-doc vprerex
  default-jre-headless tipa-doc
The following NEW packages will be installed:
  aspell aspell-en dictionaries-common dvisvgm enchant-2 fig2dev fonts-droid-
fallback fonts-lato
  fonts-lmodern fonts-noto-mono fonts-texgyre fonts-urw-base35 gawk ghostscript
glib-networking
  glib-networking-common glib-networking-services gsettings-desktop-schemas
gsfonts hunspell-en-us
  imagemagick imagemagick-6-common imagemagick-6.q16 inkscape lib2geom1.1.0
libapache-pom-java
  libaspell15 libatkmm-1.6-1v5 libcairomm-1.0-1v5 libcdr-0.1-1 libcmark-gfm-
extensions0.29.0.gfm.3
  libcmark-gfm0.29.0.gfm.3 libcommons-logging-java libcommons-parent-java
libdbus-glib-1-2
  libdjvulibre-text libdjvulibre21 libenchanted-2-2 libfftw3-double3 libfontbox-
java libfontenc1
  libglibmm-2.4-1v5 libgs9 libgs9-common libgs127 libgs-lcblas0 libgspell-1-2
libgspell-1-common
  libgtkmm-3.0-1v5 libhunspell-1.7-0 libidn12 libijs-0.35 libimage-magick-perl
libimage-magick-q16-perl libjbig2dec0 libjxr-tools libjxr0 libkpathsea6
liblqr-1-0
  libmagick++-6.q16-8 libmagickcore-6.q16-6 libmagickcore-6.q16-6-extra
libmagickwand-6.q16-6
  libnetpbm10 libpangomm-1.4-1v5 libpdfbox-java libpoppler-glib8 libpotrace0
libproxy1v5

```

```

libptexenc1 librevenge-0.0-0 librsvg2-common libruby3.0 libsigc++-2.0-0v5
libsoup2.4-1
libsoup2.4-common libsyntaxtex2 libteckit0 libtexlua53 libtexluaajit2 libtext-
iconv-perl
libvisio-0.1-1 libwmf-0.2-7 libwmf-bin libwmflite-0.2-7 libwoff1
libwpd-0.10-10 libwpg-0.3-3
libzip-0-13 lmodern netpbm pandoc pandoc-data poppler-data preview-latex-
style python3-bs4
python3-chardet python3-html5lib python3-lxml python3-numpy python3-scour
python3-soupsieve
python3-webencodings rake ruby ruby-net-telnet ruby-rubygems ruby-webrick
ruby-xmlrpc ruby3.0
rubygems-integration session-migration t1utils teckit tex-common tex-gyre
texlive-base
texlive-binaries texlive-fonts-recommended texlive-latex-base texlive-latex-
extra
texlive-latex-recommended texlive-pictures texlive-plain-generic texlive-xetex
tipa
xfonts-encodings xfonts-utils
0 upgraded, 128 newly installed, 0 to remove and 52 not upgraded.
Need to get 241 MB of archives.
After this operation, 893 MB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu jammy/main amd64 fonts-droid-fallback all
1:6.0.1r16-1.1build1 [1,805 kB]
Get:2 http://archive.ubuntu.com/ubuntu jammy/main amd64 fonts-lato all 2.0-2.1
[2,696 kB]
Get:3 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 gawk amd64
1:5.1.0-1ubuntu0.1 [447 kB]
Get:4 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64
imagemagick-6-common all 8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5 [64.3 kB]
Get:5 http://archive.ubuntu.com/ubuntu jammy/main amd64 libfftw3-double3 amd64
3.3.8-2ubuntu8 [770 kB]
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libmagickcore-6.q16-6 amd64 8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5 [1,795 kB]
Get:8 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 libimage-
magick-q16-perl amd64 8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5 [108 kB]
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magick-perl all 8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5 [53.9 kB]
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libmagickwand-6.q16-6 amd64 8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5 [328 kB]
Get:11 http://archive.ubuntu.com/ubuntu jammy/main amd64 poppler-data all
0.4.11-1 [2,171 kB]
Get:12 http://archive.ubuntu.com/ubuntu jammy/universe amd64 tex-common all 6.17
[33.7 kB]
Get:13 http://archive.ubuntu.com/ubuntu jammy/main amd64 libtext-iconv-perl
amd64 1.7-7build3 [14.3 kB]

```

Get:14 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libaspell15 amd64
 0.60.8-4build1 [325 kB]
 Get:15 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 dictionaries-common all
 1.28.14 [185 kB]
 Get:16 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 aspell amd64
 0.60.8-4build1 [87.7 kB]
 Get:17 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 aspell-en all
 2018.04.16-0-1 [299 kB]
 Get:18 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 fonts-urw-base35 all
 20200910-1 [6,367 kB]
 Get:19 <http://archive.ubuntu.com/ubuntu> jammy-updates/main amd64 libgs9-common
 all 9.55.0~dfsg1-0ubuntu5.10 [752 kB]
 Get:20 <http://archive.ubuntu.com/ubuntu> jammy-updates/main amd64 libidn12 amd64
 1.38-4ubuntu1 [60.0 kB]
 Get:21 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libijs-0.35 amd64
 0.35-15build2 [16.5 kB]
 Get:22 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libjbig2dec0 amd64
 0.19-3build2 [64.7 kB]
 Get:23 <http://archive.ubuntu.com/ubuntu> jammy-updates/main amd64 libgs9 amd64
 9.55.0~dfsg1-0ubuntu5.10 [5,031 kB]
 Get:24 <http://archive.ubuntu.com/ubuntu> jammy-updates/main amd64 libkpathsea6
 amd64 2021.20210626.59705-1ubuntu0.2 [60.4 kB]
 Get:25 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libwoff1 amd64
 1.0.2-1build4 [45.2 kB]
 Get:26 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 dvisvgm amd64
 2.13.1-1 [1,221 kB]
 Get:27 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 hunspell-en-us all
 1:2020.12.07-2 [280 kB]
 Get:28 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libhunspell-1.7-0 amd64
 1.7.0-4build1 [175 kB]
 Get:29 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libenchant-2-2 amd64
 2.3.2-1ubuntu2 [50.9 kB]
 Get:30 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 enchant-2 amd64
 2.3.2-1ubuntu2 [13.0 kB]
 Get:31 <http://archive.ubuntu.com/ubuntu> jammy-updates/main amd64 ghostscript
 amd64 9.55.0~dfsg1-0ubuntu5.10 [49.4 kB]
 Get:32 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 libnetpbm10 amd64
 2:10.0-15.4 [59.1 kB]
 Get:33 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 netpbm amd64
 2:10.0-15.4 [1,007 kB]
 Get:34 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 fig2dev amd64
 1:3.2.8b-1 [440 kB]
 Get:35 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 fonts-lmodern all
 2.004.5-6.1 [4,532 kB]
 Get:36 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 fonts-noto-mono all
 20201225-1build1 [397 kB]
 Get:37 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 fonts-texgyre all
 20180621-3.1 [10.2 MB]

Get:38 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libproxy1v5 amd64 0.4.17-2 [51.9 kB]
Get:39 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 glib-networking-common all 2.72.0-1 [3,718 B]
Get:40 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 glib-networking-services amd64 2.72.0-1 [9,982 B]
Get:41 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 session-migration amd64 0.3.6 [9,774 B]
Get:42 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 gsettings-desktop-schemas all 42.0-1ubuntu1 [31.1 kB]
Get:43 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 glib-networking amd64 2.72.0-1 [69.8 kB]
Get:44 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 gsfonts all 1:8.11+urwcyr1.0.7~pre44-4.5 [3,120 kB]
Get:45 <http://archive.ubuntu.com/ubuntu> jammy-updates/universe amd64 imagemagick-6.q16 amd64 8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5 [224 kB]
Get:46 <http://archive.ubuntu.com/ubuntu> jammy-updates/universe amd64 imagemagick amd64 8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5 [14.6 kB]
Get:47 <http://archive.ubuntu.com/ubuntu> jammy-updates/main amd64 librsvg2-common amd64 2.52.5+dfsg-3ubuntu0.2 [17.7 kB]
Get:48 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 libgslcblas0 amd64 2.7.1+dfsg-3 [94.4 kB]
Get:49 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 libgsl27 amd64 2.7.1+dfsg-3 [1,000 kB]
Get:50 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 lib2geom1.1.0 amd64 1.1-2build1 [346 kB]
Get:51 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libsigc++-2.0-0v5 amd64 2.10.4-2ubuntu3 [12.1 kB]
Get:52 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libglibmm-2.4-1v5 amd64 2.66.2-2 [645 kB]
Get:53 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libatkmm-1.6-1v5 amd64 2.28.2-1build1 [78.5 kB]
Get:54 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libcairomm-1.0-1v5 amd64 1.12.2-4build3 [45.1 kB]
Get:55 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libvenge-0.0-0 amd64 0.0.4-6ubuntu7 [209 kB]
Get:56 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libcdr-0.1-1 amd64 0.1.6-2build2 [392 kB]
Get:57 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libdbus-glib-1-2 amd64 0.112-2build1 [65.4 kB]
Get:58 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libgspell-1-common all 1.9.1-4 [6,114 B]
Get:59 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libgspell-1-2 amd64 1.9.1-4 [56.5 kB]
Get:60 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libpangomm-1.4-1v5 amd64 2.46.2-1 [56.1 kB]
Get:61 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libgtkmm-3.0-1v5 amd64 3.24.5-1build1 [1,003 kB]

Get:62 <http://archive.ubuntu.com/ubuntu> jammy-updates/universe amd64
 libmagick++-6.q16-8 amd64 8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5 [157 kB]
 Get:63 <http://archive.ubuntu.com/ubuntu> jammy-updates/main amd64 libpoppler-
 glib8 amd64 22.02.0-2ubuntu0.5 [134 kB]
 Get:64 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 libpotrace0 amd64
 1.16-2 [17.2 kB]
 Get:65 <http://archive.ubuntu.com/ubuntu> jammy-updates/main amd64
 libsoup2.4-common all 2.74.2-3ubuntu0.1 [4,070 B]
 Get:66 <http://archive.ubuntu.com/ubuntu> jammy-updates/main amd64 libsoup2.4-1
 amd64 2.74.2-3ubuntu0.1 [288 kB]
 Get:67 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libvisio-0.1-1 amd64
 0.1.7-1build5 [238 kB]
 Get:68 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libwpd-0.10-10 amd64
 0.10.3-2build1 [209 kB]
 Get:69 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libwpg-0.3-3 amd64
 0.3.3-1build3 [49.9 kB]
 Get:70 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 inkscape amd64
 1.1.2-3ubuntu1 [17.8 MB]
 Get:71 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 libapache-pom-java
 all 18-1 [4,720 B]
 Get:72 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 libcmark-
 gfm0.29.0.gfm.3 amd64 0.29.0.gfm.3-3 [115 kB]
 Get:73 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 libcmark-gfm-
 extensions0.29.0.gfm.3 amd64 0.29.0.gfm.3-3 [25.1 kB]
 Get:74 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 libcommons-parent-
 java all 43-1 [10.8 kB]
 Get:75 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 libcommons-logging-
 java all 1.2-2 [60.3 kB]
 Get:76 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libdjvulibre-text all
 3.5.28-2build2 [50.9 kB]
 Get:77 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libdjvulibre21 amd64
 3.5.28-2build2 [624 kB]
 Get:78 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libfontenc1 amd64
 1:1.1.4-1build3 [14.7 kB]
 Get:79 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 libjxr0 amd64
 1.2~git20170615.f752187-5 [174 kB]
 Get:80 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 libjxr-tools amd64
 1.2~git20170615.f752187-5 [16.0 kB]
 Get:81 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libwmflite-0.2-7 amd64
 0.2.12-5ubuntu1 [68.9 kB]
 Get:82 <http://archive.ubuntu.com/ubuntu> jammy-updates/universe amd64
 libmagickcore-6.q16-6-extra amd64 8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5 [70.1 kB]
 Get:83 <http://archive.ubuntu.com/ubuntu> jammy-updates/main amd64 libptexenc1
 amd64 2021.20210626.59705-1ubuntu0.2 [39.1 kB]
 Get:84 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 rubygems-integration
 all 1.18 [5,336 B]
 Get:85 <http://archive.ubuntu.com/ubuntu> jammy-updates/main amd64 ruby3.0 amd64
 3.0.2-7ubuntu2.8 [50.1 kB]

Get:86 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 ruby-rubygems all
 3.3.5-2 [228 kB]
 Get:87 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 ruby amd64 1:3.0~exp1
 [5,100 B]
 Get:88 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 rake all 13.0.6-2 [61.7
 kB]
 Get:89 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 ruby-net-telnet all
 0.1.1-2 [12.6 kB]
 Get:90 <http://archive.ubuntu.com/ubuntu> jammy-updates/main amd64 ruby-webrick
 all 1.7.0-3ubuntu0.1 [52.1 kB]
 Get:91 <http://archive.ubuntu.com/ubuntu> jammy-updates/main amd64 ruby-xmlrpc all
 0.3.2-1ubuntu0.1 [24.9 kB]
 Get:92 <http://archive.ubuntu.com/ubuntu> jammy-updates/main amd64 libruby3.0
 amd64 3.0.2-7ubuntu2.8 [5,113 kB]
 Get:93 <http://archive.ubuntu.com/ubuntu> jammy-updates/main amd64 libsyntax2
 amd64 2021.20210626.59705-1ubuntu0.2 [55.6 kB]
 Get:94 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 libteckit0 amd64
 2.5.11+ds1-1 [421 kB]
 Get:95 <http://archive.ubuntu.com/ubuntu> jammy-updates/main amd64 libtexlua53
 amd64 2021.20210626.59705-1ubuntu0.2 [120 kB]
 Get:96 <http://archive.ubuntu.com/ubuntu> jammy-updates/main amd64 libtexluajit2
 amd64 2021.20210626.59705-1ubuntu0.2 [267 kB]
 Get:97 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 libwmf-0.2-7 amd64
 0.2.12-5ubuntu1 [94.2 kB]
 Get:98 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 libwmf-bin amd64
 0.2.12-5ubuntu1 [34.3 kB]
 Get:99 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 libzip-0-13 amd64
 0.13.72+dfsg.1-1.1 [27.0 kB]
 Get:100 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 xfonts-encodings all
 1:1.0.5-0ubuntu2 [578 kB]
 Get:101 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 xfonts-utils amd64
 1:7.7+6build2 [94.6 kB]
 Get:102 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 lmodern all
 2.004.5-6.1 [9,471 kB]
 Get:103 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 pandoc-data all
 2.9.2.1-3ubuntu2 [81.8 kB]
 Get:104 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 pandoc amd64
 2.9.2.1-3ubuntu2 [20.3 MB]
 Get:105 <http://archive.ubuntu.com/ubuntu> jammy/universe amd64 preview-latex-
 style all 12.2-1ubuntu1 [185 kB]
 Get:106 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 python3-soupsieve all
 2.3.1-1 [33.0 kB]
 Get:107 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 python3-bs4 all
 4.10.0-2 [79.1 kB]
 Get:108 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 python3-chardet all
 4.0.0-1 [98.0 kB]
 Get:109 <http://archive.ubuntu.com/ubuntu> jammy/main amd64 python3-webencodings
 all 0.5.1-4 [11.8 kB]


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Get:110 http://archive.ubuntu.com/ubuntu jammy/main amd64 python3-html5lib all
1.1-3 [87.0 kB]
Get:111 http://archive.ubuntu.com/ubuntu jammy/main amd64 python3-lxml amd64
4.8.0-1build1 [1,150 kB]
Get:112 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 python3-numpy
amd64 1:1.21.5-1ubuntu22.04.1 [3,467 kB]
Get:113 http://archive.ubuntu.com/ubuntu jammy/universe amd64 python3-scour all
0.38.2-2 [49.4 kB]
Get:114 http://archive.ubuntu.com/ubuntu jammy/main amd64 tiutils amd64
1.41-4build2 [61.3 kB]
Get:115 http://archive.ubuntu.com/ubuntu jammy/universe amd64 teckit amd64
2.5.11+ds1-1 [699 kB]
Get:116 http://archive.ubuntu.com/ubuntu jammy/universe amd64 tex-gyre all
20180621-3.1 [6,209 kB]
Get:117 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 texlive-
binaries amd64 2021.20210626.59705-1ubuntu0.2 [9,860 kB]
Get:118 http://archive.ubuntu.com/ubuntu jammy/universe amd64 texlive-base all
2021.20220204-1 [21.0 MB]
Get:119 http://archive.ubuntu.com/ubuntu jammy/universe amd64 texlive-fonts-
recommended all 2021.20220204-1 [4,972 kB]
Get:120 http://archive.ubuntu.com/ubuntu jammy/universe amd64 texlive-latex-base
all 2021.20220204-1 [1,128 kB]
Get:121 http://archive.ubuntu.com/ubuntu jammy/universe amd64 libfontbox-java
all 1:1.8.16-2 [207 kB]
Get:122 http://archive.ubuntu.com/ubuntu jammy/universe amd64 libpdfbox-java all
1:1.8.16-2 [5,199 kB]
Get:123 http://archive.ubuntu.com/ubuntu jammy/universe amd64 texlive-latex-
recommended all 2021.20220204-1 [14.4 MB]
Get:124 http://archive.ubuntu.com/ubuntu jammy/universe amd64 texlive-pictures
all 2021.20220204-1 [8,720 kB]
Get:125 http://archive.ubuntu.com/ubuntu jammy/universe amd64 texlive-latex-
extra all 2021.20220204-1 [13.9 MB]
Get:126 http://archive.ubuntu.com/ubuntu jammy/universe amd64 texlive-plain-
generic all 2021.20220204-1 [27.5 MB]
Get:127 http://archive.ubuntu.com/ubuntu jammy/universe amd64 tipa all 2:1.3-21
[2,967 kB]
Get:128 http://archive.ubuntu.com/ubuntu jammy/universe amd64 texlive-xetex all
2021.20220204-1 [12.4 MB]
Fetched 241 MB in 15s (16.6 MB/s)
Extracting templates from packages: 100%
Preconfiguring packages ...
Selecting previously unselected package fonts-droid-fallback.
(Reading database ... 123632 files and directories currently installed.)
Preparing to unpack .../000-fonts-droid-fallback_1%3a6.0.1r16-1.1build1_all.deb
...
Unpacking fonts-droid-fallback (1:6.0.1r16-1.1build1) ...
Selecting previously unselected package fonts-lato.
Preparing to unpack .../001-fonts-lato_2.0-2.1_all.deb ...

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Unpacking fonts-lato (2.0-2.1) ...
Selecting previously unselected package gawk.
Preparing to unpack .../002-gawk_1%3a5.1.0-1ubuntu0.1_amd64.deb ...
Unpacking gawk (1:5.1.0-1ubuntu0.1) ...
Selecting previously unselected package imagemagick-6-common.
Preparing to unpack
.../003-imagemagick-6-common_8%3a6.9.11.60+dfsg-1.3ubuntu0.22.04.5_all.deb ...
Unpacking imagemagick-6-common (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) ...
Selecting previously unselected package libfftw3-double3:amd64.
Preparing to unpack .../004-libfftw3-double3_3.3.8-2ubuntu8_amd64.deb ...
Unpacking libfftw3-double3:amd64 (3.3.8-2ubuntu8) ...
Selecting previously unselected package liblqr-1-0:amd64.
Preparing to unpack .../005-liblqr-1-0_0.4.2-2.1_amd64.deb ...
Unpacking liblqr-1-0:amd64 (0.4.2-2.1) ...
Selecting previously unselected package libmagickcore-6.q16-6:amd64.
Preparing to unpack
.../006-libmagickcore-6.q16-6_8%3a6.9.11.60+dfsg-1.3ubuntu0.22.04.5_amd64.deb
...
Unpacking libmagickcore-6.q16-6:amd64 (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) ...
Selecting previously unselected package libimage-magick-q16-perl.
Preparing to unpack .../007-libimage-
magick-q16-perl_8%3a6.9.11.60+dfsg-1.3ubuntu0.22.04.5_amd64.deb ...
Unpacking libimage-magick-q16-perl (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) ...
Selecting previously unselected package libimage-magick-perl.
Preparing to unpack .../008-libimage-magick-
perl_8%3a6.9.11.60+dfsg-1.3ubuntu0.22.04.5_all.deb ...
Unpacking libimage-magick-perl (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) ...
Selecting previously unselected package libmagickwand-6.q16-6:amd64.
Preparing to unpack
.../009-libmagickwand-6.q16-6_8%3a6.9.11.60+dfsg-1.3ubuntu0.22.04.5_amd64.deb
...
Unpacking libmagickwand-6.q16-6:amd64 (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) ...
Selecting previously unselected package poppler-data.
Preparing to unpack .../010-poppler-data_0.4.11-1_all.deb ...
Unpacking poppler-data (0.4.11-1) ...
Selecting previously unselected package tex-common.
Preparing to unpack .../011-tex-common_6.17_all.deb ...
Unpacking tex-common (6.17) ...
Selecting previously unselected package libtext-iconv-perl.
Preparing to unpack .../012-libtext-iconv-perl_1.7-7build3_amd64.deb ...
Unpacking libtext-iconv-perl (1.7-7build3) ...
Selecting previously unselected package libaspell15:amd64.
Preparing to unpack .../013-libaspell15_0.60.8-4build1_amd64.deb ...
Unpacking libaspell15:amd64 (0.60.8-4build1) ...
Selecting previously unselected package dictionaries-common.
Preparing to unpack .../014-dictionaries-common_1.28.14_all.deb ...
Adding 'diversion of /usr/share/dict/words to /usr/share/dict/words.pre-
dictionaries-common by dictionaries-common'

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Unpacking dictionaries-common (1.28.14) ...
Selecting previously unselected package aspell.
Preparing to unpack .../015-aspell_0.60.8-4build1_amd64.deb ...
Unpacking aspell (0.60.8-4build1) ...
Selecting previously unselected package aspell-en.
Preparing to unpack .../016-aspell-en_2018.04.16-0-1_all.deb ...
Unpacking aspell-en (2018.04.16-0-1) ...
Selecting previously unselected package fonts-urw-base35.
Preparing to unpack .../017-fonts-urw-base35_20200910-1_all.deb ...
Unpacking fonts-urw-base35 (20200910-1) ...
Selecting previously unselected package libgs9-common.
Preparing to unpack .../018-libgs9-common_9.55.0~dfsg1-0ubuntu5.10_all.deb ...
Unpacking libgs9-common (9.55.0~dfsg1-0ubuntu5.10) ...
Selecting previously unselected package libidn12:amd64.
Preparing to unpack .../019-libidn12_1.38-4ubuntu1_amd64.deb ...
Unpacking libidn12:amd64 (1.38-4ubuntu1) ...
Selecting previously unselected package libijs-0.35:amd64.
Preparing to unpack .../020-libijs-0.35_0.35-15build2_amd64.deb ...
Unpacking libijs-0.35:amd64 (0.35-15build2) ...
Selecting previously unselected package libjbig2dec0:amd64.
Preparing to unpack .../021-libjbig2dec0_0.19-3build2_amd64.deb ...
Unpacking libjbig2dec0:amd64 (0.19-3build2) ...
Selecting previously unselected package libgs9:amd64.
Preparing to unpack .../022-libgs9_9.55.0~dfsg1-0ubuntu5.10_amd64.deb ...
Unpacking libgs9:amd64 (9.55.0~dfsg1-0ubuntu5.10) ...
Selecting previously unselected package libkpathsea6:amd64.
Preparing to unpack
.../023-libkpathsea6_2021.20210626.59705-1ubuntu0.2_amd64.deb ...
Unpacking libkpathsea6:amd64 (2021.20210626.59705-1ubuntu0.2) ...
Selecting previously unselected package libwoff1:amd64.
Preparing to unpack .../024-libwoff1_1.0.2-1build4_amd64.deb ...
Unpacking libwoff1:amd64 (1.0.2-1build4) ...
Selecting previously unselected package dvisvgm.
Preparing to unpack .../025-dvisvgm_2.13.1-1_amd64.deb ...
Unpacking dvisvgm (2.13.1-1) ...
Selecting previously unselected package hunspell-en-us.
Preparing to unpack .../026-hunspell-en-us_1%3a2020.12.07-2_all.deb ...
Unpacking hunspell-en-us (1:2020.12.07-2) ...
Selecting previously unselected package libhunspell-1.7-0:amd64.
Preparing to unpack .../027-libhunspell-1.7-0_1.7.0-4build1_amd64.deb ...
Unpacking libhunspell-1.7-0:amd64 (1.7.0-4build1) ...
Selecting previously unselected package libenchanted-2-2:amd64.
Preparing to unpack .../028-libenchanted-2-2_2.3.2-1ubuntu2_amd64.deb ...
Unpacking libenchanted-2-2:amd64 (2.3.2-1ubuntu2) ...
Selecting previously unselected package enchant-2.
Preparing to unpack .../029-enchant-2_2.3.2-1ubuntu2_amd64.deb ...
Unpacking enchant-2 (2.3.2-1ubuntu2) ...
Selecting previously unselected package ghostscript.

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Preparing to unpack .../030-ghostscript_9.55.0~dfsg1-0ubuntu5.10_amd64.deb ...
Unpacking ghostscript (9.55.0~dfsg1-0ubuntu5.10) ...
Selecting previously unselected package libnetpbm10.
Preparing to unpack .../031-libnetpbm10_2%3a10.0-15.4_amd64.deb ...
Unpacking libnetpbm10 (2:10.0-15.4) ...
Selecting previously unselected package netpbm.
Preparing to unpack .../032-netpbm_2%3a10.0-15.4_amd64.deb ...
Unpacking netpbm (2:10.0-15.4) ...
Selecting previously unselected package fig2dev.
Preparing to unpack .../033-fig2dev_1%3a3.2.8b-1_amd64.deb ...
Unpacking fig2dev (1:3.2.8b-1) ...
Selecting previously unselected package fonts-lmodern.
Preparing to unpack .../034-fonts-lmodern_2.004.5-6.1_all.deb ...
Unpacking fonts-lmodern (2.004.5-6.1) ...
Selecting previously unselected package fonts-noto-mono.
Preparing to unpack .../035-fonts-noto-mono_20201225-1build1_all.deb ...
Unpacking fonts-noto-mono (20201225-1build1) ...
Selecting previously unselected package fonts-texgyre.
Preparing to unpack .../036-fonts-texgyre_20180621-3.1_all.deb ...
Unpacking fonts-texgyre (20180621-3.1) ...
Selecting previously unselected package libproxy1v5:amd64.
Preparing to unpack .../037-libproxy1v5_0.4.17-2_amd64.deb ...
Unpacking libproxy1v5:amd64 (0.4.17-2) ...
Selecting previously unselected package glib-networking-common.
Preparing to unpack .../038-glib-networking-common_2.72.0-1_all.deb ...
Unpacking glib-networking-common (2.72.0-1) ...
Selecting previously unselected package glib-networking-services.
Preparing to unpack .../039-glib-networking-services_2.72.0-1_amd64.deb ...
Unpacking glib-networking-services (2.72.0-1) ...
Selecting previously unselected package session-migration.
Preparing to unpack .../040-session-migration_0.3.6_amd64.deb ...
Unpacking session-migration (0.3.6) ...
Selecting previously unselected package gsettings-desktop-schemas.
Preparing to unpack .../041-gsettings-desktop-schemas_42.0-1ubuntu1_all.deb ...
Unpacking gsettings-desktop-schemas (42.0-1ubuntu1) ...
Selecting previously unselected package glib-networking:amd64.
Preparing to unpack .../042-glib-networking_2.72.0-1_amd64.deb ...
Unpacking glib-networking:amd64 (2.72.0-1) ...
Selecting previously unselected package gsfonts.
Preparing to unpack .../043-gsfonts_1%3a8.11+urwcyr1.0.7~pre44-4.5_all.deb ...
Unpacking gsfonts (1:8.11+urwcyr1.0.7~pre44-4.5) ...
Selecting previously unselected package imagemagick-6.q16.
Preparing to unpack
.../044-imagemagick-6.q16_8%3a6.9.11.60+dfsg-1.3ubuntu0.22.04.5_amd64.deb ...
Unpacking imagemagick-6.q16 (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) ...
Selecting previously unselected package imagemagick.
Preparing to unpack
.../045-imagemagick_8%3a6.9.11.60+dfsg-1.3ubuntu0.22.04.5_amd64.deb ...

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Unpacking imagemagick (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) ...
Selecting previously unselected package librsvg2-common:amd64.
Preparing to unpack .../046-librsvg2-common_2.52.5+dfsg-3ubuntu0.2_amd64.deb ...
Unpacking librsvg2-common:amd64 (2.52.5+dfsg-3ubuntu0.2) ...
Selecting previously unselected package libgslcblas0:amd64.
Preparing to unpack .../047-libgslcblas0_2.7.1+dfsg-3_amd64.deb ...
Unpacking libgslcblas0:amd64 (2.7.1+dfsg-3) ...
Selecting previously unselected package libgsl27:amd64.
Preparing to unpack .../048-libgsl27_2.7.1+dfsg-3_amd64.deb ...
Unpacking libgsl27:amd64 (2.7.1+dfsg-3) ...
Selecting previously unselected package lib2geom1.1.0:amd64.
Preparing to unpack .../049-lib2geom1.1.0_1.1-2build1_amd64.deb ...
Unpacking lib2geom1.1.0:amd64 (1.1-2build1) ...
Selecting previously unselected package libsigc++-2.0-0v5:amd64.
Preparing to unpack .../050-libsigc++-2.0-0v5_2.10.4-2ubuntu3_amd64.deb ...
Unpacking libsigc++-2.0-0v5:amd64 (2.10.4-2ubuntu3) ...
Selecting previously unselected package libglibmm-2.4-1v5:amd64.
Preparing to unpack .../051-libglibmm-2.4-1v5_2.66.2-2_amd64.deb ...
Unpacking libglibmm-2.4-1v5:amd64 (2.66.2-2) ...
Selecting previously unselected package libatkmm-1.6-1v5:amd64.
Preparing to unpack .../052-libatkmm-1.6-1v5_2.28.2-1build1_amd64.deb ...
Unpacking libatkmm-1.6-1v5:amd64 (2.28.2-1build1) ...
Selecting previously unselected package libcairomm-1.0-1v5:amd64.
Preparing to unpack .../053-libcairomm-1.0-1v5_1.12.2-4build3_amd64.deb ...
Unpacking libcairomm-1.0-1v5:amd64 (1.12.2-4build3) ...
Selecting previously unselected package libvenge-0.0-0:amd64.
Preparing to unpack .../054-libvenge-0.0-0_0.0.4-6ubuntu7_amd64.deb ...
Unpacking libvenge-0.0-0:amd64 (0.0.4-6ubuntu7) ...
Selecting previously unselected package libcdr-0.1-1:amd64.
Preparing to unpack .../055-libcdr-0.1-1_0.1.6-2build2_amd64.deb ...
Unpacking libcdr-0.1-1:amd64 (0.1.6-2build2) ...
Selecting previously unselected package libdbus-glib-1-2:amd64.
Preparing to unpack .../056-libdbus-glib-1-2_0.112-2build1_amd64.deb ...
Unpacking libdbus-glib-1-2:amd64 (0.112-2build1) ...
Selecting previously unselected package libgspell-1-common.
Preparing to unpack .../057-libgspell-1-common_1.9.1-4_all.deb ...
Unpacking libgspell-1-common (1.9.1-4) ...
Selecting previously unselected package libgspell-1-2:amd64.
Preparing to unpack .../058-libgspell-1-2_1.9.1-4_amd64.deb ...
Unpacking libgspell-1-2:amd64 (1.9.1-4) ...
Selecting previously unselected package libpangomm-1.4-1v5:amd64.
Preparing to unpack .../059-libpangomm-1.4-1v5_2.46.2-1_amd64.deb ...
Unpacking libpangomm-1.4-1v5:amd64 (2.46.2-1) ...
Selecting previously unselected package libgtkmm-3.0-1v5:amd64.
Preparing to unpack .../060-libgtkmm-3.0-1v5_3.24.5-1build1_amd64.deb ...
Unpacking libgtkmm-3.0-1v5:amd64 (3.24.5-1build1) ...
Selecting previously unselected package libmagick++-6.q16-8:amd64.
Preparing to unpack

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.../061-libmagick++-6.q16-8_8%3a6.9.11.60+dfsg-1.3ubuntu0.22.04.5_amd64.deb ...
Unpacking libmagick++-6.q16-8:amd64 (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) ...
Selecting previously unselected package libpoppler-glib8:amd64.
Preparing to unpack .../062-libpoppler-glib8_22.02.0-2ubuntu0.5_amd64.deb ...
Unpacking libpoppler-glib8:amd64 (22.02.0-2ubuntu0.5) ...
Selecting previously unselected package libpotrace0:amd64.
Preparing to unpack .../063-libpotrace0_1.16-2_amd64.deb ...
Unpacking libpotrace0:amd64 (1.16-2) ...
Selecting previously unselected package libsoup2.4-common.
Preparing to unpack .../064-libsoup2.4-common_2.74.2-3ubuntu0.1_all.deb ...
Unpacking libsoup2.4-common (2.74.2-3ubuntu0.1) ...
Selecting previously unselected package libsoup2.4-1:amd64.
Preparing to unpack .../065-libsoup2.4-1_2.74.2-3ubuntu0.1_amd64.deb ...
Unpacking libsoup2.4-1:amd64 (2.74.2-3ubuntu0.1) ...
Selecting previously unselected package libvisio-0.1-1:amd64.
Preparing to unpack .../066-libvisio-0.1-1_0.1.7-1build5_amd64.deb ...
Unpacking libvisio-0.1-1:amd64 (0.1.7-1build5) ...
Selecting previously unselected package libwpd-0.10-10:amd64.
Preparing to unpack .../067-libwpd-0.10-10_0.10.3-2build1_amd64.deb ...
Unpacking libwpd-0.10-10:amd64 (0.10.3-2build1) ...
Selecting previously unselected package libwpg-0.3-3:amd64.
Preparing to unpack .../068-libwpg-0.3-3_0.3.3-1build3_amd64.deb ...
Unpacking libwpg-0.3-3:amd64 (0.3.3-1build3) ...
Selecting previously unselected package inkscape.
Preparing to unpack .../069-inkscape_1.1.2-3ubuntu1_amd64.deb ...
Unpacking inkscape (1.1.2-3ubuntu1) ...
Selecting previously unselected package libapache-pom-java.
Preparing to unpack .../070-libapache-pom-java_18-1_all.deb ...
Unpacking libapache-pom-java (18-1) ...
Selecting previously unselected package libcmark-gfm0.29.0.gfm.3:amd64.
Preparing to unpack .../071-libcmark-gfm0.29.0.gfm.3_0.29.0.gfm.3-3_amd64.deb
...
Unpacking libcmark-gfm0.29.0.gfm.3:amd64 (0.29.0.gfm.3-3) ...
Selecting previously unselected package libcmark-gfm-
extensions0.29.0.gfm.3:amd64.
Preparing to unpack .../072-libcmark-gfm-
extensions0.29.0.gfm.3_0.29.0.gfm.3-3_amd64.deb ...
Unpacking libcmark-gfm-extensions0.29.0.gfm.3:amd64 (0.29.0.gfm.3-3) ...
Selecting previously unselected package libcommons-parent-java.
Preparing to unpack .../073-libcommons-parent-java_43-1_all.deb ...
Unpacking libcommons-parent-java (43-1) ...
Selecting previously unselected package libcommons-logging-java.
Preparing to unpack .../074-libcommons-logging-java_1.2-2_all.deb ...
Unpacking libcommons-logging-java (1.2-2) ...
Selecting previously unselected package libdjvulibre-text.
Preparing to unpack .../075-libdjvulibre-text_3.5.28-2build2_all.deb ...
Unpacking libdjvulibre-text (3.5.28-2build2) ...
Selecting previously unselected package libdjvulibre21:amd64.

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Preparing to unpack .../076-libdjvulibre21_3.5.28-2build2_amd64.deb ...
Unpacking libdjvulibre21:amd64 (3.5.28-2build2) ...
Selecting previously unselected package libfontenc1:amd64.
Preparing to unpack .../077-libfontenc1_1%3a1.1.4-1build3_amd64.deb ...
Unpacking libfontenc1:amd64 (1:1.1.4-1build3) ...
Selecting previously unselected package libjxr0:amd64.
Preparing to unpack .../078-libjxr0_1.2~git20170615.f752187-5_amd64.deb ...
Unpacking libjxr0:amd64 (1.2~git20170615.f752187-5) ...
Selecting previously unselected package libjxr-tools.
Preparing to unpack .../079-libjxr-tools_1.2~git20170615.f752187-5_amd64.deb ...
Unpacking libjxr-tools (1.2~git20170615.f752187-5) ...
Selecting previously unselected package libwmflite-0.2-7:amd64.
Preparing to unpack .../080-libwmflite-0.2-7_0.2.12-5ubuntu1_amd64.deb ...
Unpacking libwmflite-0.2-7:amd64 (0.2.12-5ubuntu1) ...
Selecting previously unselected package libmagickcore-6.q16-6-extra:amd64.
Preparing to unpack .../081-libmagickcore-6.q16-6-extra_8%3a6.9.11.60+dfsg-1.3ubuntu0.22.04.5_amd64.deb ...
Unpacking libmagickcore-6.q16-6-extra:amd64
(8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) ...
Selecting previously unselected package libptexenc1:amd64.
Preparing to unpack .../082-libptexenc1_2021.20210626.59705-1ubuntu0.2_amd64.deb
...
Unpacking libptexenc1:amd64 (2021.20210626.59705-1ubuntu0.2) ...
Selecting previously unselected package rubygems-integration.
Preparing to unpack .../083-rubygems-integration_1.18_all.deb ...
Unpacking rubygems-integration (1.18) ...
Selecting previously unselected package ruby3.0.
Preparing to unpack .../084-ruby3.0_3.0.2-7ubuntu2.8_amd64.deb ...
Unpacking ruby3.0 (3.0.2-7ubuntu2.8) ...
Selecting previously unselected package ruby-rubygems.
Preparing to unpack .../085-ruby-rubygems_3.3.5-2_all.deb ...
Unpacking ruby-rubygems (3.3.5-2) ...
Selecting previously unselected package ruby.
Preparing to unpack .../086-ruby_1%3a3.0~exp1_amd64.deb ...
Unpacking ruby (1:3.0~exp1) ...
Selecting previously unselected package rake.
Preparing to unpack .../087-rake_13.0.6-2_all.deb ...
Unpacking rake (13.0.6-2) ...
Selecting previously unselected package ruby-net-telnet.
Preparing to unpack .../088-ruby-net-telnet_0.1.1-2_all.deb ...
Unpacking ruby-net-telnet (0.1.1-2) ...
Selecting previously unselected package ruby-webrick.
Preparing to unpack .../089-ruby-webrick_1.7.0-3ubuntu0.1_all.deb ...
Unpacking ruby-webrick (1.7.0-3ubuntu0.1) ...
Selecting previously unselected package ruby-xmlrpc.
Preparing to unpack .../090-ruby-xmlrpc_0.3.2-1ubuntu0.1_all.deb ...
Unpacking ruby-xmlrpc (0.3.2-1ubuntu0.1) ...
Selecting previously unselected package libruby3.0:amd64.

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Preparing to unpack .../091-libruby3.0_3.0.2-7ubuntu2.8_amd64.deb ...
Unpacking libruby3.0:amd64 (3.0.2-7ubuntu2.8) ...
Selecting previously unselected package libsyntax2:amd64.
Preparing to unpack .../092-libsyntax2_2021.20210626.59705-1ubuntu0.2_amd64.deb
...
Unpacking libsyntax2:amd64 (2021.20210626.59705-1ubuntu0.2) ...
Selecting previously unselected package libteckit0:amd64.
Preparing to unpack .../093-libteckit0_2.5.11+ds1-1_amd64.deb ...
Unpacking libteckit0:amd64 (2.5.11+ds1-1) ...
Selecting previously unselected package libtexlua53:amd64.
Preparing to unpack .../094-libtexlua53_2021.20210626.59705-1ubuntu0.2_amd64.deb
...
Unpacking libtexlua53:amd64 (2021.20210626.59705-1ubuntu0.2) ...
Selecting previously unselected package libtexlua53:amd64.
Preparing to unpack
.../095-libtexlua53_2021.20210626.59705-1ubuntu0.2_amd64.deb ...
Unpacking libtexlua53:amd64 (2021.20210626.59705-1ubuntu0.2) ...
Selecting previously unselected package libwmf-0.2-7:amd64.
Preparing to unpack .../096-libwmf-0.2-7_0.2.12-5ubuntu1_amd64.deb ...
Unpacking libwmf-0.2-7:amd64 (0.2.12-5ubuntu1) ...
Selecting previously unselected package libwmf-bin.
Preparing to unpack .../097-libwmf-bin_0.2.12-5ubuntu1_amd64.deb ...
Unpacking libwmf-bin (0.2.12-5ubuntu1) ...
Selecting previously unselected package libzip-0-13:amd64.
Preparing to unpack .../098-libzip-0-13_0.13.72+dfsg.1-1.1_amd64.deb ...
Unpacking libzip-0-13:amd64 (0.13.72+dfsg.1-1.1) ...
Selecting previously unselected package xfonts-encodings.
Preparing to unpack .../099-xfonts-encodings_1%3a1.0.5-0ubuntu2_all.deb ...
Unpacking xfonts-encodings (1:1.0.5-0ubuntu2) ...
Selecting previously unselected package xfonts-utils.
Preparing to unpack .../100-xfonts-utils_1%3a7.7+6build2_amd64.deb ...
Unpacking xfonts-utils (1:7.7+6build2) ...
Selecting previously unselected package lmodern.
Preparing to unpack .../101-lmodern_2.004.5-6.1_all.deb ...
Unpacking lmodern (2.004.5-6.1) ...
Selecting previously unselected package pandoc-data.
Preparing to unpack .../102-pandoc-data_2.9.2.1-3ubuntu2_all.deb ...
Unpacking pandoc-data (2.9.2.1-3ubuntu2) ...
Selecting previously unselected package pandoc.
Preparing to unpack .../103-pandoc_2.9.2.1-3ubuntu2_amd64.deb ...
Unpacking pandoc (2.9.2.1-3ubuntu2) ...
Selecting previously unselected package preview-latex-style.
Preparing to unpack .../104-preview-latex-style_12.2-1ubuntu1_all.deb ...
Unpacking preview-latex-style (12.2-1ubuntu1) ...
Selecting previously unselected package python3-soupsieve.
Preparing to unpack .../105-python3-soupsieve_2.3.1-1_all.deb ...
Unpacking python3-soupsieve (2.3.1-1) ...
Selecting previously unselected package python3-bs4.

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Preparing to unpack .../106-python3-bs4_4.10.0-2_all.deb ...
Unpacking python3-bs4 (4.10.0-2) ...
Selecting previously unselected package python3-chardet.
Preparing to unpack .../107-python3-chardet_4.0.0-1_all.deb ...
Unpacking python3-chardet (4.0.0-1) ...
Selecting previously unselected package python3-webencodings.
Preparing to unpack .../108-python3-webencodings_0.5.1-4_all.deb ...
Unpacking python3-webencodings (0.5.1-4) ...
Selecting previously unselected package python3-html5lib.
Preparing to unpack .../109-python3-html5lib_1.1-3_all.deb ...
Unpacking python3-html5lib (1.1-3) ...
Selecting previously unselected package python3-lxml:amd64.
Preparing to unpack .../110-python3-lxml_4.8.0-1build1_amd64.deb ...
Unpacking python3-lxml:amd64 (4.8.0-1build1) ...
Selecting previously unselected package python3-numpy.
Preparing to unpack .../111-python3-numpy_1%3a1.21.5-1ubuntu22.04.1_amd64.deb
...
Unpacking python3-numpy (1:1.21.5-1ubuntu22.04.1) ...
Selecting previously unselected package python3-scour.
Preparing to unpack .../112-python3-scour_0.38.2-2_all.deb ...
Unpacking python3-scour (0.38.2-2) ...
Selecting previously unselected package t1utils.
Preparing to unpack .../113-t1utils_1.41-4build2_amd64.deb ...
Unpacking t1utils (1.41-4build2) ...
Selecting previously unselected package teckit.
Preparing to unpack .../114-teckit_2.5.11+ds1-1_amd64.deb ...
Unpacking teckit (2.5.11+ds1-1) ...
Selecting previously unselected package tex-gyre.
Preparing to unpack .../115-tex-gyre_20180621-3.1_all.deb ...
Unpacking tex-gyre (20180621-3.1) ...
Selecting previously unselected package texlive-binaries.
Preparing to unpack .../116-texlive-
binaries_2021.20210626.59705-1ubuntu0.2_amd64.deb ...
Unpacking texlive-binaries (2021.20210626.59705-1ubuntu0.2) ...
Selecting previously unselected package texlive-base.
Preparing to unpack .../117-texlive-base_2021.20220204-1_all.deb ...
Unpacking texlive-base (2021.20220204-1) ...
Selecting previously unselected package texlive-fonts-recommended.
Preparing to unpack .../118-texlive-fonts-recommended_2021.20220204-1_all.deb
...
Unpacking texlive-fonts-recommended (2021.20220204-1) ...
Selecting previously unselected package texlive-latex-base.
Preparing to unpack .../119-texlive-latex-base_2021.20220204-1_all.deb ...
Unpacking texlive-latex-base (2021.20220204-1) ...
Selecting previously unselected package libfontbox-java.
Preparing to unpack .../120-libfontbox-java_1%3a1.8.16-2_all.deb ...
Unpacking libfontbox-java (1:1.8.16-2) ...
Selecting previously unselected package libpdfbox-java.

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Preparing to unpack .../121-libpdfbox-java_1%3a1.8.16-2_all.deb ...
Unpacking libpdfbox-java (1:1.8.16-2) ...
Selecting previously unselected package texlive-latex-recommended.
Preparing to unpack .../122-texlive-latex-recommended_2021.20220204-1_all.deb
...
Unpacking texlive-latex-recommended (2021.20220204-1) ...
Selecting previously unselected package texlive-pictures.
Preparing to unpack .../123-texlive-pictures_2021.20220204-1_all.deb ...
Unpacking texlive-pictures (2021.20220204-1) ...
Selecting previously unselected package texlive-latex-extra.
Preparing to unpack .../124-texlive-latex-extra_2021.20220204-1_all.deb ...
Unpacking texlive-latex-extra (2021.20220204-1) ...
Selecting previously unselected package texlive-plain-generic.
Preparing to unpack .../125-texlive-plain-generic_2021.20220204-1_all.deb ...
Unpacking texlive-plain-generic (2021.20220204-1) ...
Selecting previously unselected package tipa.
Preparing to unpack .../126-tipa_2%3a1.3-21_all.deb ...
Unpacking tipa (2:1.3-21) ...
Selecting previously unselected package texlive-xetex.
Preparing to unpack .../127-texlive-xetex_2021.20220204-1_all.deb ...
Unpacking texlive-xetex (2021.20220204-1) ...
Setting up libtext-iconv-perl (1.7-7build3) ...
Setting up session-migration (0.3.6) ...
Created symlink /etc/systemd/user/graphical-session-pre.target.wants/session-
migration.service → /usr/lib/systemd/user/session-migration.service.
Setting up imagemagick-6-common (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) ...
Setting up libproxy1v5:amd64 (0.4.17-2) ...
Setting up fonts-lato (2.0-2.1) ...
Setting up libpoppler-glib8:amd64 (22.02.0-2ubuntu0.5) ...
Setting up fonts-noto-mono (20201225-1build1) ...
Setting up libwmflite-0.2-7:amd64 (0.2.12-5ubuntu1) ...
Setting up libwoff1:amd64 (1.0.2-1build4) ...
Setting up libgslcblas0:amd64 (2.7.1+dfsg-3) ...
Setting up libgsPELL-1-common (1.9.1-4) ...
Setting up dictionaries-common (1.28.14) ...
Setting up gawk (1:5.1.0-1ubuntu0.1) ...
Setting up libtexlua53:amd64 (2021.20210626.59705-1ubuntu0.2) ...
Setting up libaspell15:amd64 (0.60.8-4build1) ...
Setting up libijs-0.35:amd64 (0.35-15build2) ...
Setting up libjxr0:amd64 (1.2~git20170615.f752187-5) ...
Setting up libtexluajit2:amd64 (2021.20210626.59705-1ubuntu0.2) ...
Setting up libfontbox-java (1:1.8.16-2) ...
Setting up libgsl27:amd64 (2.7.1+dfsg-3) ...
Setting up rubygems-integration (1.18) ...
Setting up libzip-0-13:amd64 (0.13.72+dfsg.1-1.1) ...
Setting up libnetpbm10 (2:10.0-15.4) ...
Setting up fonts-urw-base35 (20200910-1) ...
Setting up python3-webencodings (0.5.1-4) ...

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Setting up libvenge-0.0-0:amd64 (0.0.4-6ubuntu7) ...
Setting up poppler-data (0.4.11-1) ...
Setting up tex-common (6.17) ...
update-language: texlive-base not installed and configured, doing nothing!
Setting up libfontenc1:amd64 (1:1.1.4-1build3) ...
Setting up python3-chardet (4.0.0-1) ...
Setting up libwmf-0.2-7:amd64 (0.2.12-5ubuntu1) ...
Setting up libjbig2dec0:amd64 (0.19-3build2) ...
Setting up libsigc++-2.0-0v5:amd64 (2.10.4-2ubuntu3) ...
Setting up libdbus-glib-1-2:amd64 (0.112-2build1) ...
Setting up libteckit0:amd64 (2.5.11+ds1-1) ...
Setting up gsfonts (1:8.11+urwcyr1.0.7~pre44-4.5) ...
Setting up libapache-pom-java (18-1) ...
Setting up ruby-net-telnet (0.1.1-2) ...
Setting up xfonts-encodings (1:1.0.5-0ubuntu2) ...
Setting up t1utils (1.41-4build2) ...
Setting up libidn12:amd64 (1.38-4ubuntu1) ...
Setting up lib2geom1.1.0:amd64 (1.1-2build1) ...
Setting up fonts-texgyre (20180621-3.1) ...
Setting up aspell (0.60.8-4build1) ...
Setting up librsvg2-common:amd64 (2.52.5+dfsg-3ubuntu0.2) ...
Setting up netpbm (2:10.0-15.4) ...
Setting up python3-html5lib (1.1-3) ...
Setting up python3-numpy (1:1.21.5-1ubuntu22.04.1) ...
Setting up libfftw3-double3:amd64 (3.3.8-2ubuntu8) ...
Setting up libkpathsea6:amd64 (2021.20210626.59705-1ubuntu0.2) ...
Setting up libsoup2.4-common (2.74.2-3ubuntu0.1) ...
Setting up ruby-webrick (1.7.0-3ubuntu0.1) ...
Setting up libcmark-gfm0.29.0.gfm.3:amd64 (0.29.0.gfm.3-3) ...
Setting up liblqr-1-0:amd64 (0.4.2-2.1) ...
Setting up python3-lxml:amd64 (4.8.0-1build1) ...
Setting up hunspell-en-us (1:2020.12.07-2) ...
Setting up fonts-lmodern (2.004.5-6.1) ...
Setting up libcmark-gfm-extensions0.29.0.gfm.3:amd64 (0.29.0.gfm.3-3) ...
Setting up fonts-droid-fallback (1:6.0.1r16-1.1build1) ...
Setting up python3-scour (0.38.2-2) ...
Setting up libdjvulibre-text (3.5.28-2build2) ...
Setting up pandoc-data (2.9.2.1-3ubuntu2) ...
Setting up libhunspell-1.7-0:amd64 (1.7.0-4build1) ...
Setting up glib-networking-common (2.72.0-1) ...
Setting up libwpd-0.10-10:amd64 (0.10.3-2build1) ...
Setting up ruby-xmlrpc (0.3.2-1ubuntu0.1) ...
Setting up python3-soupsieve (2.3.1-1) ...
Setting up libsyntax2:amd64 (2021.20210626.59705-1ubuntu0.2) ...
Setting up libvisio-0.1-1:amd64 (0.1.7-1build5) ...
Setting up libpotrace0:amd64 (1.16-2) ...
Setting up libgs9-common (9.55.0~dfsg1-0ubuntu5.10) ...
Setting up teckit (2.5.11+ds1-1) ...

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Setting up gsettings-desktop-schemas (42.0-1ubuntu1) ...
Setting up glib-networking-services (2.72.0-1) ...
Setting up libglibmm-2.4-1v5:amd64 (2.66.2-2) ...
Setting up libwmf-bin (0.2.12-5ubuntu1) ...
Setting up libpdfbox-java (1:1.8.16-2) ...
Setting up libjxr-tools (1.2~git20170615.f752187-5) ...
Setting up libgs9:amd64 (9.55.0~dfsg1-0ubuntu5.10) ...
Setting up libenchanted-2-2:amd64 (2.3.2-1ubuntu2) ...
Setting up preview-latex-style (12.2-1ubuntu1) ...
Setting up libcommons-parent-java (43-1) ...
Setting up libdjvulibre21:amd64 (3.5.28-2build2) ...
Setting up aspell-en (2018.04.16-0-1) ...
Setting up dvisvgm (2.13.1-1) ...
Setting up libcommons-logging-java (1.2-2) ...
Setting up enchant-2 (2.3.2-1ubuntu2) ...
Setting up libcdr-0.1-1:amd64 (0.1.6-2build2) ...
Setting up ghostscript (9.55.0~dfsg1-0ubuntu5.10) ...
Setting up xfonts-utils (1:7.7+6build2) ...
Setting up fig2dev (1:3.2.8b-1) ...
Setting up python3-bs4 (4.10.0-2) ...
Setting up libcairomm-1.0-1v5:amd64 (1.12.2-4build3) ...
Setting up libmagickcore-6.q16-6:amd64 (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) ...
Setting up libptexenc1:amd64 (2021.20210626.59705-1ubuntu0.2) ...
Setting up pandoc (2.9.2.1-3ubuntu2) ...
Setting up libpangomm-1.4-1v5:amd64 (2.46.2-1) ...
Setting up libwpg-0.3-3:amd64 (0.3.3-1build3) ...
Setting up texlive-binaries (2021.20210626.59705-1ubuntu0.2) ...
update-alternatives: using /usr/bin/xdvi-xaw to provide /usr/bin/xdvi.bin
(xdvi.bin) in auto mode
update-alternatives: using /usr/bin/bibtex.original to provide /usr/bin/bibtex
(bibtex) in auto mode
Setting up lmodern (2.004.5-6.1) ...
Setting up libmagickwand-6.q16-6:amd64 (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) ...
Setting up libatkmm-1.6-1v5:amd64 (2.28.2-1build1) ...
Setting up libmagick++-6.q16-8:amd64 (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) ...
Setting up texlive-base (2021.20220204-1) ...
/usr/bin/ucfr
/usr/bin/ucfr
/usr/bin/ucfr
/usr/bin/ucfr
mktexlsr: Updating /var/lib/texmf/ls-R-TEXLIVEDIST...
mktexlsr: Updating /var/lib/texmf/ls-R-TEXMFMAIN...
mktexlsr: Updating /var/lib/texmf/ls-R...
mktexlsr: Done.
tl-paper: setting paper size for dvips to a4:
/var/lib/texmf/dvips/config/config-paper.ps
tl-paper: setting paper size for dvipdfmx to a4:
/var/lib/texmf/dvipdfmx/dvipdfmx-paper.cfg

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tl-paper: setting paper size for xdvi to a4: /var/lib/texmf/xdvi/XDvi-paper
tl-paper: setting paper size for pdftex to a4: /var/lib/texmf/tex/generic/tex-
ini-files/pdftexconfig.tex
Setting up tex-gyre (20180621-3.1) ...
Setting up libgspell-1-2:amd64 (1.9.1-4) ...
Setting up libmagickcore-6.q16-6-extra:amd64
(8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) ...
Setting up libimage-magick-q16-perl (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) ...
Setting up libgtkmm-3.0-1v5:amd64 (3.24.5-1build1) ...
Setting up texlive-plain-generic (2021.20220204-1) ...
Setting up texlive-latex-base (2021.20220204-1) ...
Setting up texlive-latex-recommended (2021.20220204-1) ...
Setting up texlive-pictures (2021.20220204-1) ...
Setting up imagemagick-6.q16 (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) ...
update-alternatives: using /usr/bin/compare-im6.q16 to provide /usr/bin/compare
(compare) in auto mode
update-alternatives: using /usr/bin/compare-im6.q16 to provide /usr/bin/compare-
im6 (compare-im6) in auto mode
update-alternatives: using /usr/bin/animate-im6.q16 to provide /usr/bin/animate
/animate) in auto mode
update-alternatives: using /usr/bin/animate-im6.q16 to provide /usr/bin/animate-
im6 (animate-im6) in auto mode
update-alternatives: using /usr/bin/convert-im6.q16 to provide /usr/bin/convert
(convert) in auto mode
update-alternatives: using /usr/bin/convert-im6.q16 to provide /usr/bin/convert-
im6 (convert-im6) in auto mode
update-alternatives: using /usr/bin/composite-im6.q16 to provide
/usr/bin/composite (composite) in auto mode
update-alternatives: using /usr/bin/composite-im6.q16 to provide
/usr/bin/composite-im6 (composite-im6) in auto mode
update-alternatives: using /usr/bin/conjure-im6.q16 to provide /usr/bin/conjure
(conjure) in auto mode
update-alternatives: using /usr/bin/conjure-im6.q16 to provide /usr/bin/conjure-
im6 (conjure-im6) in auto mode
update-alternatives: using /usr/bin/import-im6.q16 to provide /usr/bin/import
(import) in auto mode
update-alternatives: using /usr/bin/import-im6.q16 to provide /usr/bin/import-
im6 (import-im6) in auto mode
update-alternatives: using /usr/bin/identify-im6.q16 to provide
/usr/bin/identify (identify) in auto mode
update-alternatives: using /usr/bin/identify-im6.q16 to provide
/usr/bin/identify-im6 (identify-im6) in auto mode
update-alternatives: using /usr/bin/stream-im6.q16 to provide /usr/bin/stream
(stream) in auto mode
update-alternatives: using /usr/bin/stream-im6.q16 to provide /usr/bin/stream-
im6 (stream-im6) in auto mode
update-alternatives: using /usr/bin/display-im6.q16 to provide /usr/bin/display
(display) in auto mode

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update-alternatives: using /usr/bin/display-im6.q16 to provide /usr/bin/display-im6 (display-im6) in auto mode
update-alternatives: using /usr/bin/montage-im6.q16 to provide /usr/bin/montage (montage) in auto mode
update-alternatives: using /usr/bin/montage-im6.q16 to provide /usr/bin/montage-im6 (montage-im6) in auto mode
update-alternatives: using /usr/bin/mogrify-im6.q16 to provide /usr/bin/mogrify (mogrify) in auto mode
update-alternatives: using /usr/bin/mogrify-im6.q16 to provide /usr/bin/mogrify-im6 (mogrify-im6) in auto mode
Setting up texlive-fonts-recommended (2021.20220204-1) ...
Setting up tipa (2:1.3-21) ...
Setting up libimage-magick-perl (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) ...
Setting up texlive-latex-extra (2021.20220204-1) ...
Setting up imagemagick (8:6.9.11.60+dfsg-1.3ubuntu0.22.04.5) ...
Setting up texlive-xetex (2021.20220204-1) ...
Setting up ruby3.0 (3.0.2-7ubuntu2.8) ...
Setting up ruby (1:3.0~exp1) ...
Setting up rake (13.0.6-2) ...
Setting up libruby3.0:amd64 (3.0.2-7ubuntu2.8) ...
Setting up ruby-rubygems (3.3.5-2) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for libgdk-pixbuf-2.0-0:amd64 (2.42.8+dfsg-1ubuntu0.3) ...
Processing triggers for fontconfig (2.13.1-4.2ubuntu5) ...
Processing triggers for hicolor-icon-theme (0.17-2) ...
Processing triggers for libgl2.0-0:amd64 (2.72.4-0ubuntu2.4) ...
Processing triggers for libc-bin (2.35-0ubuntu3.4) ...
/sbin/ldconfig.real: /usr/local/lib/libumf.so.0 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbbind.so.3 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtcm.so.1 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_loader.so.0 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtcm_debug.so.1 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbbind_2_5.so.3 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbbind_2_0.so.3 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_adapter_level_zero.so.0 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbmalloc_proxy.so.2 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbmalloc.so.2 is not a symbolic link

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/sbin/ldconfig.real: /usr/local/lib/libtbb.so.12 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_adapter_opencl.so.0 is not a symbolic
link

/sbin/ldconfig.real: /usr/local/lib/libhwloc.so.15 is not a symbolic link

Setting up glib-networking:amd64 (2.72.0-1) ...
Setting up libsoup2.4-1:amd64 (2.74.2-3ubuntu0.1) ...
Setting up inkscape (1.1.2-3ubuntu1) ...
Processing triggers for dictionaries-common (1.28.14) ...
aspell-autobuildhash: processing: en [en-common].
aspell-autobuildhash: processing: en [en-variant_0].
aspell-autobuildhash: processing: en [en-variant_1].
aspell-autobuildhash: processing: en [en-variant_2].
aspell-autobuildhash: processing: en [en-w_accents-only].
aspell-autobuildhash: processing: en [en-wo_accents-only].
aspell-autobuildhash: processing: en [en_AU-variant_0].
aspell-autobuildhash: processing: en [en_AU-variant_1].
aspell-autobuildhash: processing: en [en_AU-w_accents-only].
aspell-autobuildhash: processing: en [en_AU-wo_accents-only].
aspell-autobuildhash: processing: en [en_CA-variant_0].
aspell-autobuildhash: processing: en [en_CA-variant_1].
aspell-autobuildhash: processing: en [en_CA-w_accents-only].
aspell-autobuildhash: processing: en [en_CA-wo_accents-only].
aspell-autobuildhash: processing: en [en_GB-ise-w_accents-only].
aspell-autobuildhash: processing: en [en_GB-ise-wo_accents-only].
aspell-autobuildhash: processing: en [en_GB-ize-w_accents-only].
aspell-autobuildhash: processing: en [en_GB-ize-wo_accents-only].
aspell-autobuildhash: processing: en [en_GB-variant_0].
aspell-autobuildhash: processing: en [en_GB-variant_1].
aspell-autobuildhash: processing: en [en_US-w_accents-only].
aspell-autobuildhash: processing: en [en_US-wo_accents-only].
Processing triggers for tex-common (6.17) ...
Running upmap-sys. This may take some time... done.
Running mktexlsr /var/lib/texmf ... done.
Building format(s) --all.
    This may take some time... done.
Processing triggers for libc-bin (2.35-0ubuntu3.4) ...
/sbin/ldconfig.real: /usr/local/lib/libumf.so.0 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbbind.so.3 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtcm.so.1 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_loader.so.0 is not a symbolic link

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/sbin/ldconfig.real: /usr/local/lib/libtcm_debug.so.1 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbbind_2_5.so.3 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbbind_2_0.so.3 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_adapter_level_zero.so.0 is not a
symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbbmalloc_proxy.so.2 is not a symbolic
link

/sbin/ldconfig.real: /usr/local/lib/libtbbmalloc.so.2 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libtbb.so.12 is not a symbolic link

/sbin/ldconfig.real: /usr/local/lib/libur_adapter_opencl.so.0 is not a symbolic
link

/sbin/ldconfig.real: /usr/local/lib/libhwloc.so.15 is not a symbolic link

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[72]: !jupyter nbconvert --to pdf '/content/main.ipynb'
```

```

[NbConvertApp] Converting notebook /content/main.ipynb to pdf
/usr/local/share/jupyter/nbconvert/templates/latex/display_priority.j2:32:
UserWarning: Your element with mimetype(s) dict_keys(['application/vnd.colab-
display-data+json']) is not able to be represented.
  ((*- endblock -*))
[NbConvertApp] Support files will be in main_files/
[NbConvertApp] Making directory ./main_files
[NbConvertApp] Writing 494445 bytes to notebook.tex
[NbConvertApp] Building PDF
[NbConvertApp] Running xelatex 3 times: ['xelatex', 'notebook.tex', '-quiet']
[NbConvertApp] Running bibtex 1 time: ['bibtex', 'notebook']
[NbConvertApp] WARNING | bibtex had problems, most likely because there were no
citations
[NbConvertApp] PDF successfully created
[NbConvertApp] Writing 726060 bytes to /content/main.pdf

```