## NTIRE 2023 Efficient SR Challenge

## Factsheet Information Team details

- Team name :Loading2
- Team leader name: Min Gao
  - Team leader address, phone number, and email :Xidian university,18834192125,1157632500@qq.com
- Rest of the team members: Jingwen Zhang, Ruonan Wang
- •User names and entries on the NTIRE 2023 Codalab competitions (development/validation and test ing phases):min\_gao
- •Best scoring entries of the team during development/validation phase :psnr=29.43
- •Link to the codes/executables of the solution(s):

## Method details

- •General method description (How is the network designed.) :Based on the strong baseline model SwinIR. The front and back modules are based on CNN, and the middle module mainly uses SwInTransformer.
- •Training strategy: The batch size is set to 8. The learning rate is set to 2e-4. We train all models for total 1048 epochs.
- •Experimental results:

| MODEL | SwinIR | MPRNet | ABPN  | NAFNet | BSNR  |
|-------|--------|--------|-------|--------|-------|
| PSNR  | 29.43  | 29.01  | 29.12 | 29.23  | 29.52 |

## •References:

- [1] Li, Yawei, et. al, "NTIRE 2022 challenge on efficient super-resolution: Methods and results." CVPR Workshops, 2022.
- [2] Zhang, Kai, et al. "AIM 2020 challenge on efficient super-resolution: Methods and results." ECCV Workshops, 2020.
- •Total method complexity (number of parameters, FLOPs, GPU memory consumption, number of activations, runtime) :

| Params  | FLOPs     | Activations | GPU memory  |
|---------|-----------|-------------|-------------|
|         |           |             | consumption |
| 0.9102M | 217.5074G | 24.3794M    | 8132M       |