

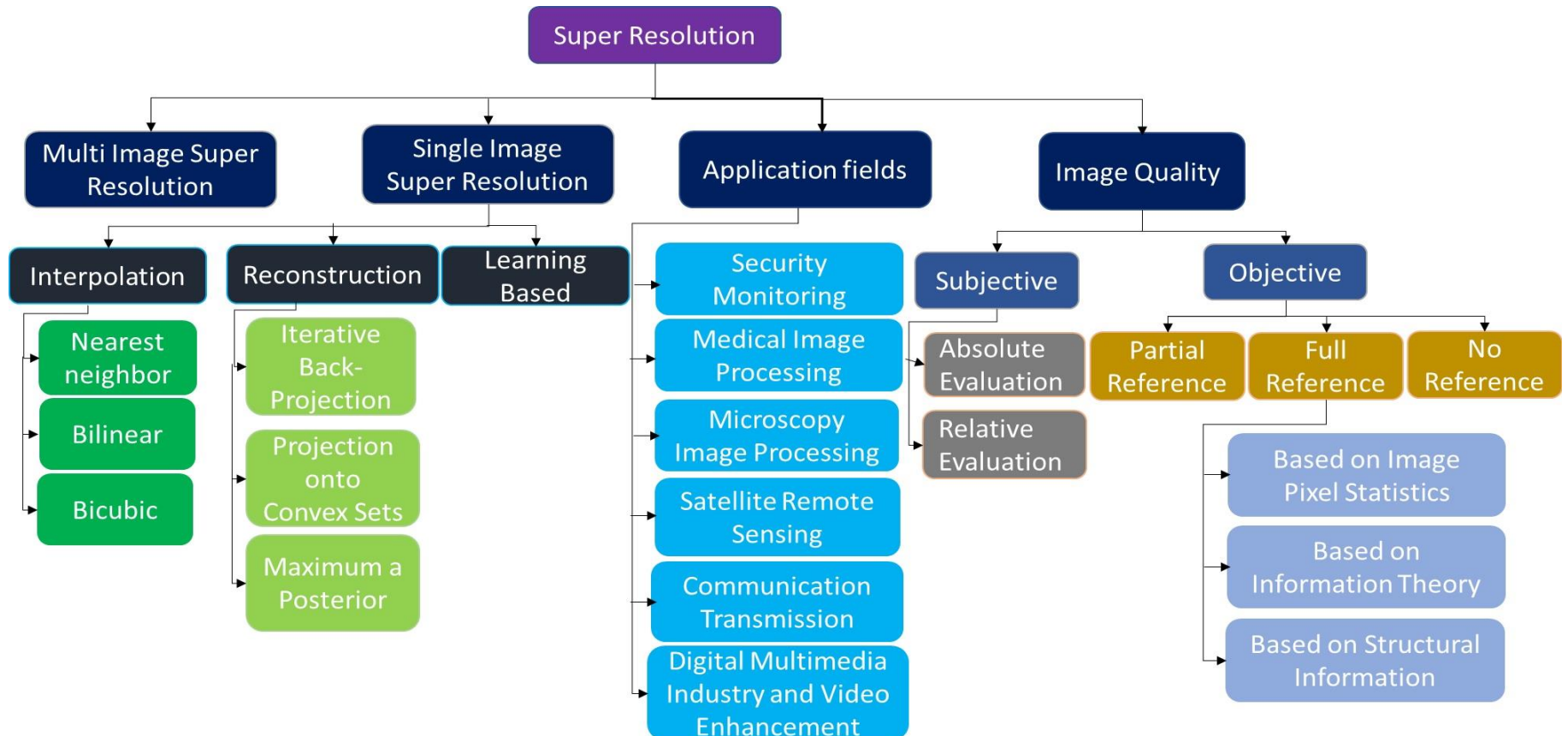
# Single Image Super – Resolution : A Comprehensive Review and Recent Insight

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# Problems & Ideas

Super-resolution (SR) is a technique that recovers high-resolution images from observed low-resolution images. It is very important for several fields such as security monitoring, medical imaging, imaging systems, astronomical imaging, and surveillance. This paper reviews recent findings of single image super-resolution using deep learning methods, highlighting potential applications, challenges, and future directions of image super-resolution.



# Main Contributions

- Contributions:
- We provided a brief tutorial on image super-resolution techniques, which may help to clarify the super-resolution tasks.
- This work introduced comprehensive and popular state-of-the-art SR methods.
- We also compared the various super-resolution stages and demonstrated how to construct the structure for the super-resolution method.
- We focused on distillation knowledge (SR) as an important method of SR.
- We highlight the challenges and future directions of image super-resolution.