



# Robust depth perception through Virtual Pattern Projection

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## Introduction

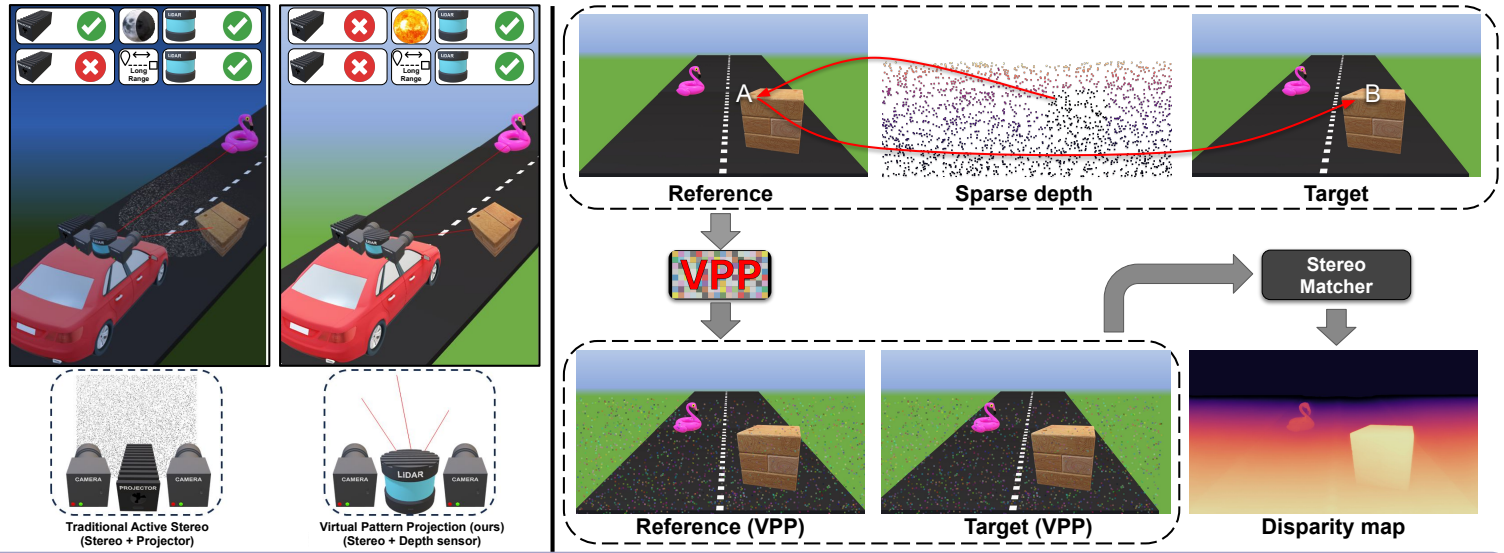
### Problems

- Stereo networks suffer in the presence of large untextured regions and facing domain shifts
- Active stereo uses pattern projection, which is not always feasible (e.g., outdoor, long-range)

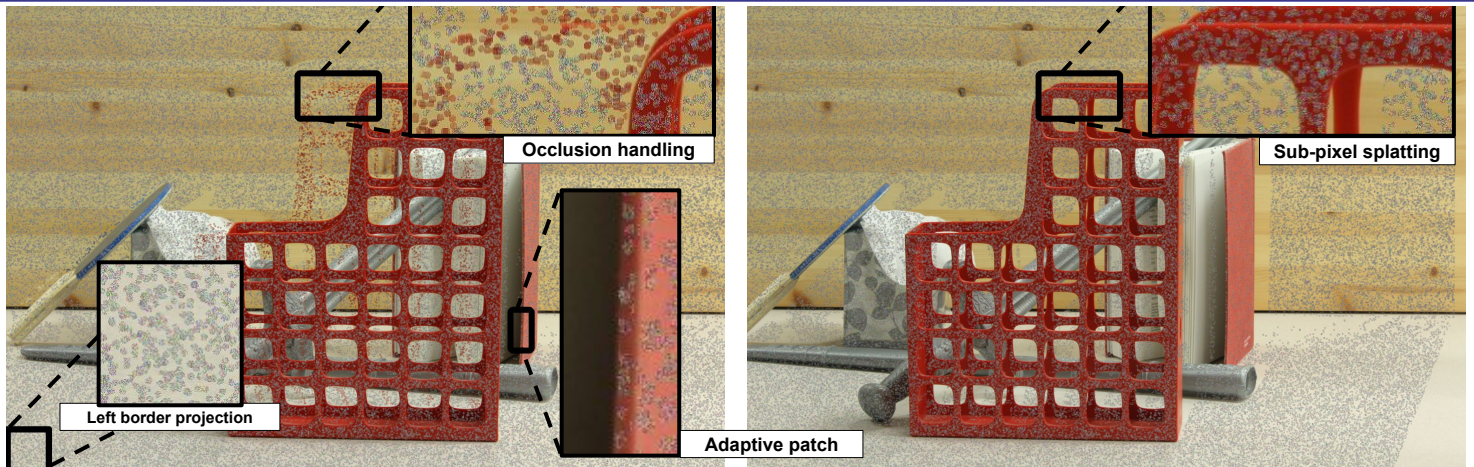
### Proposal

- We project a **virtual pattern** on images according to the sparse measurements from a depth sensor
- This virtual active stereo setup works in any environment if coupled with an appropriate depth sensor

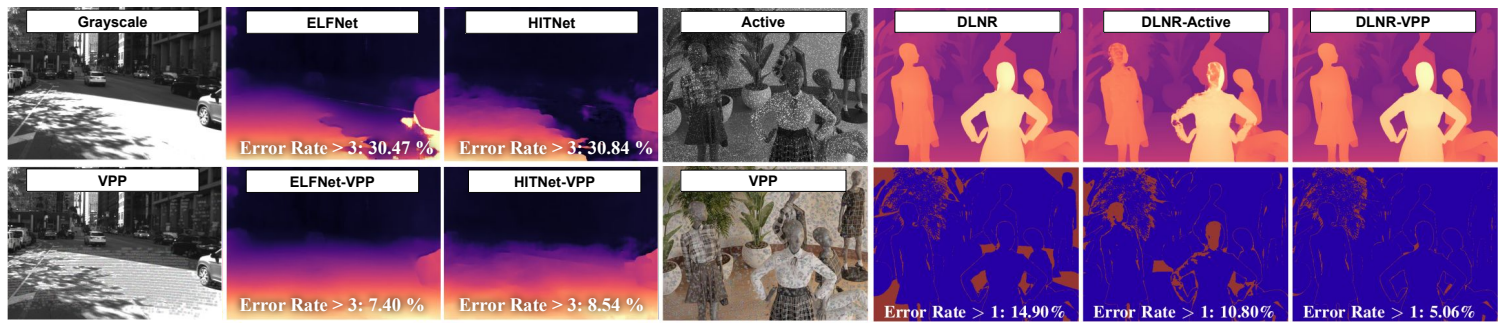
## Virtual Pattern Projection (VPP) principle



## VPP in action



## Qualitative Results



## References



Project Page



Paper



Code