Multi-modal Characteristic Guided Depth Completion Network (supplementary material)

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1 Synchronized / Asynchronized runtime

There is an issue on measuring the runtime of models. In case of using CUDA, the asynchronized runtime is more precise inference time. Therefore, we measured the runtime of our model in both synchronized and asynchronized versions.

We referenced the runtime of PENet which is available at:

– https://github.com/JUGGHM/PENet_ICRA2021

Table 1. Synchronized and asynchronized runtime of our and PENet models

Method	Synchronized	Asynchronized
PENet	0.161s	0.032s
Ours	0.111s	0.015s

As show in Table 1., our model shows faster runtime on both synchronized and asynchronized versions.

2 Qualitative results

From Fig. 1 to 4, we added the detailed qualitative results to represent the property of our model. The figures include the depth and confidence maps of each step, and it shows that our model uses each modality on their advantage area.

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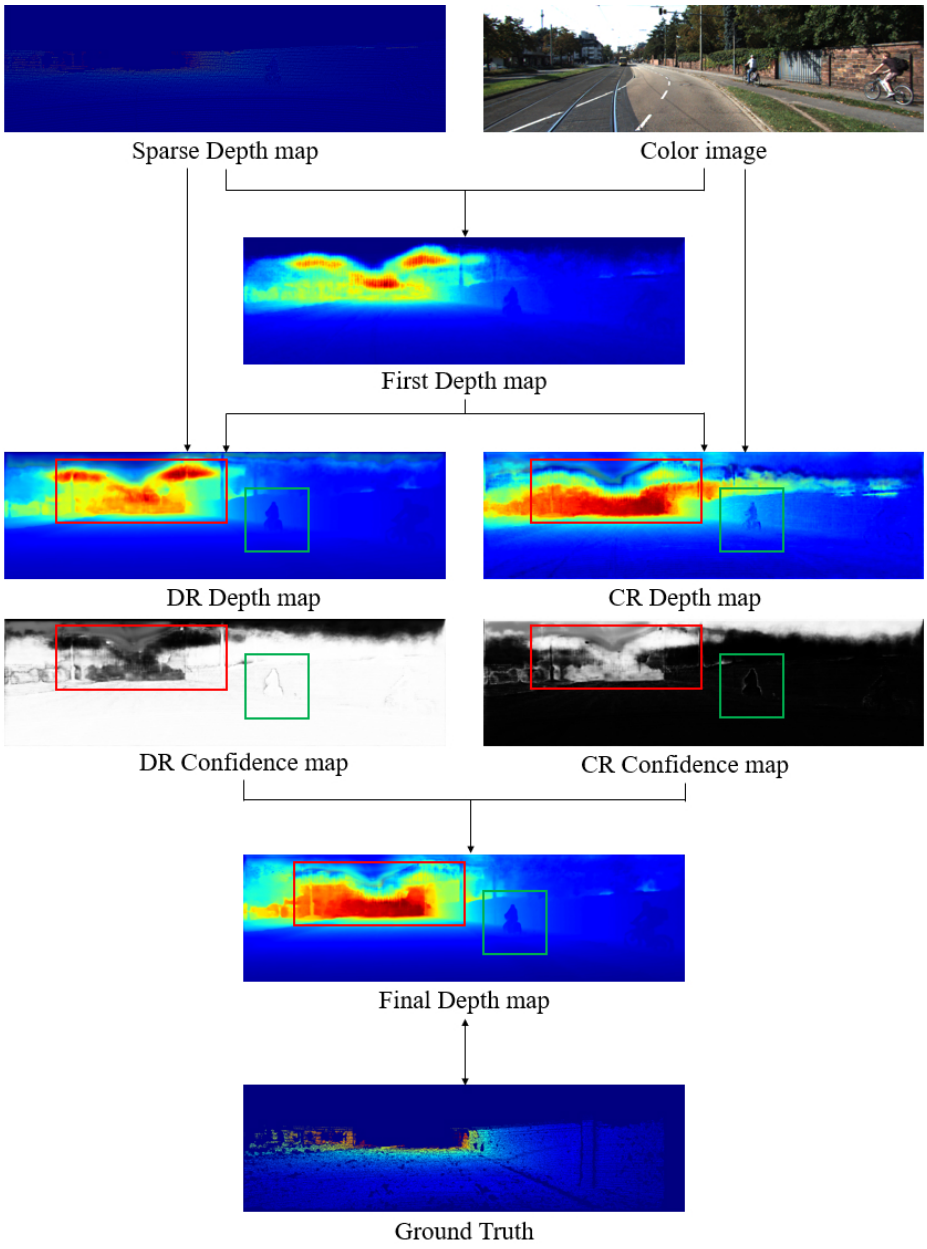

Fig. 1. Detailed qualitative results. The CR depth map is dominant on the red box, while the DR depth map is dominant on the green box.

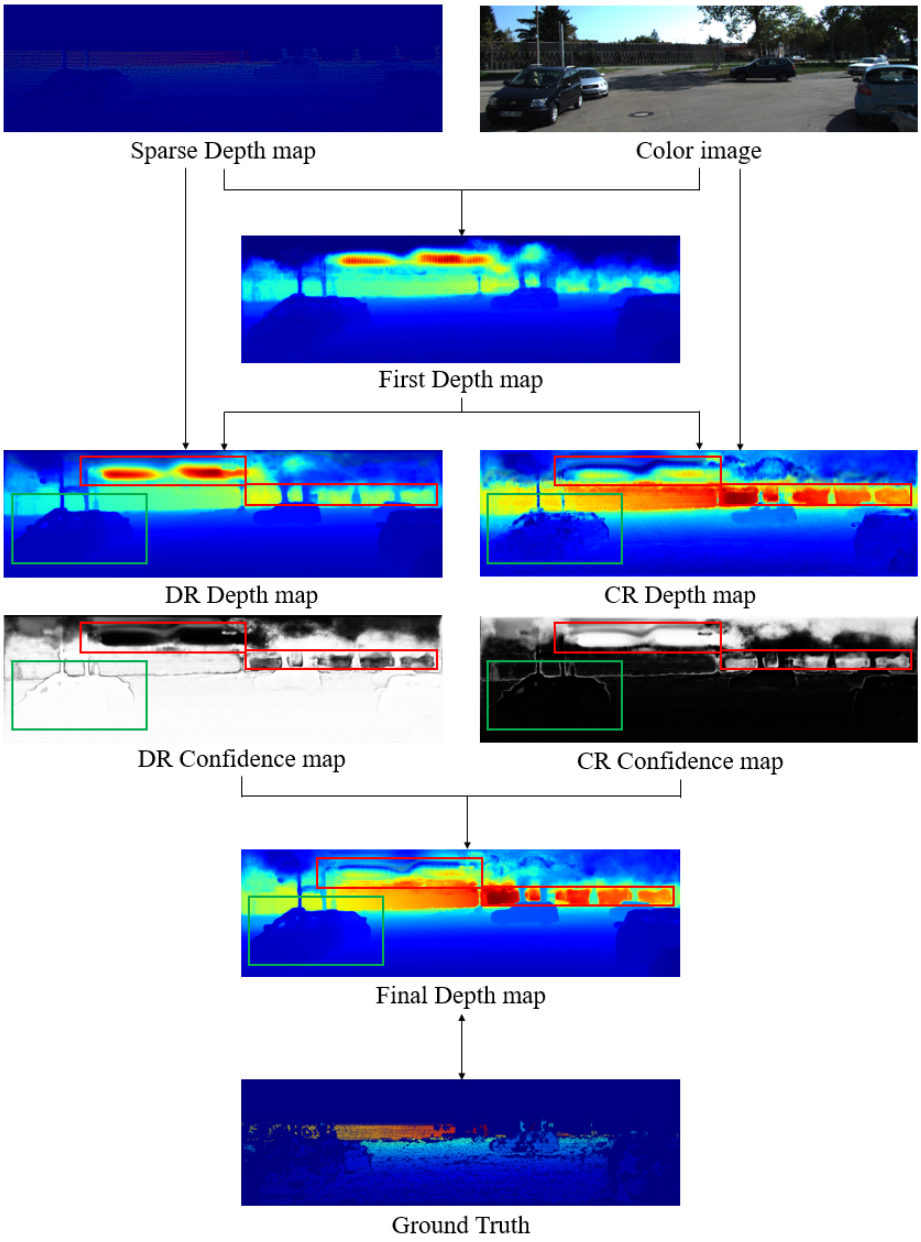

Fig. 2. Detailed qualitative results. The CR depth map is dominant on the red box, while the DR depth map is dominant on the green box.

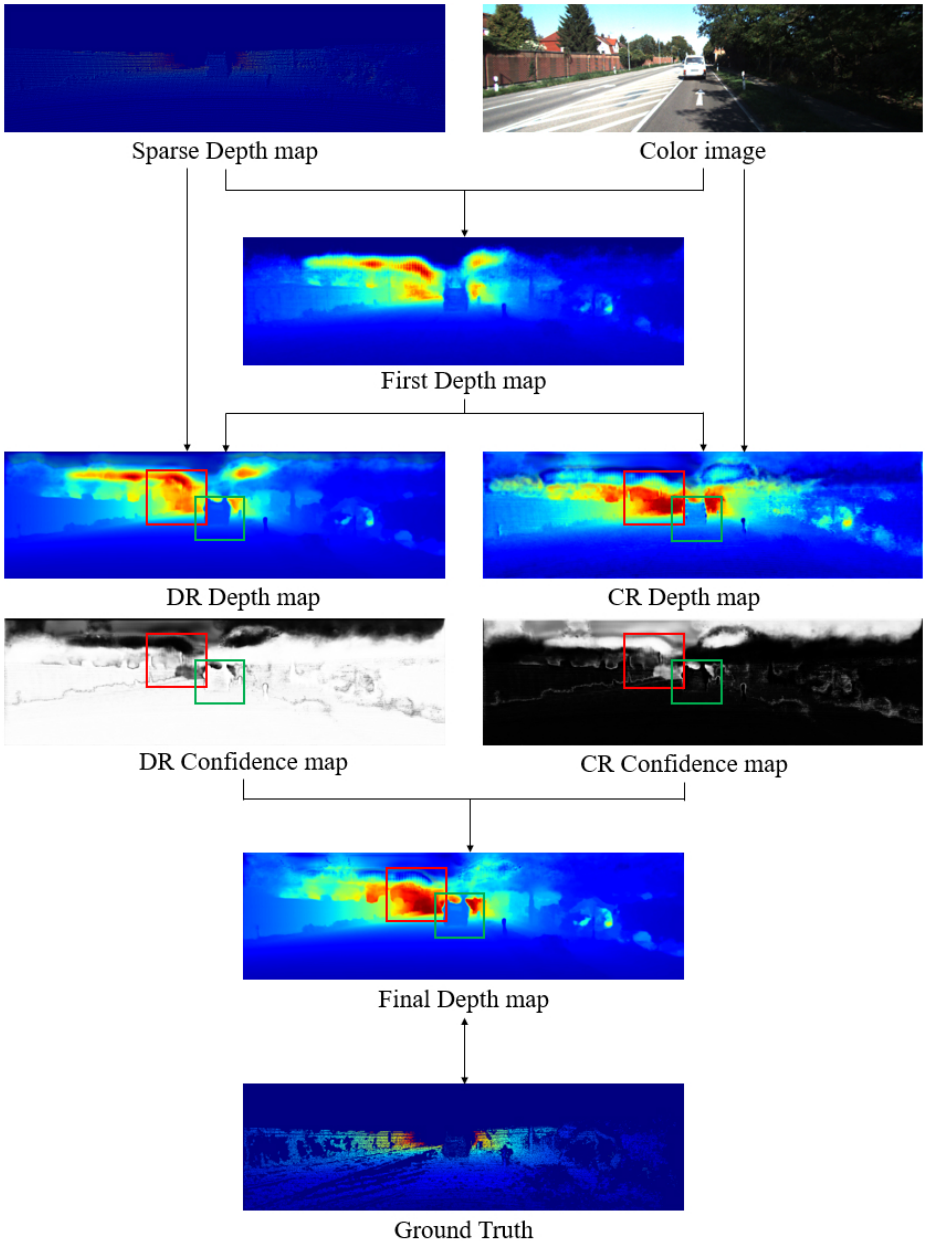

Fig. 3. Detailed qualitative results. The CR depth map is dominant on the red box, while the DR depth map is dominant on the green box.

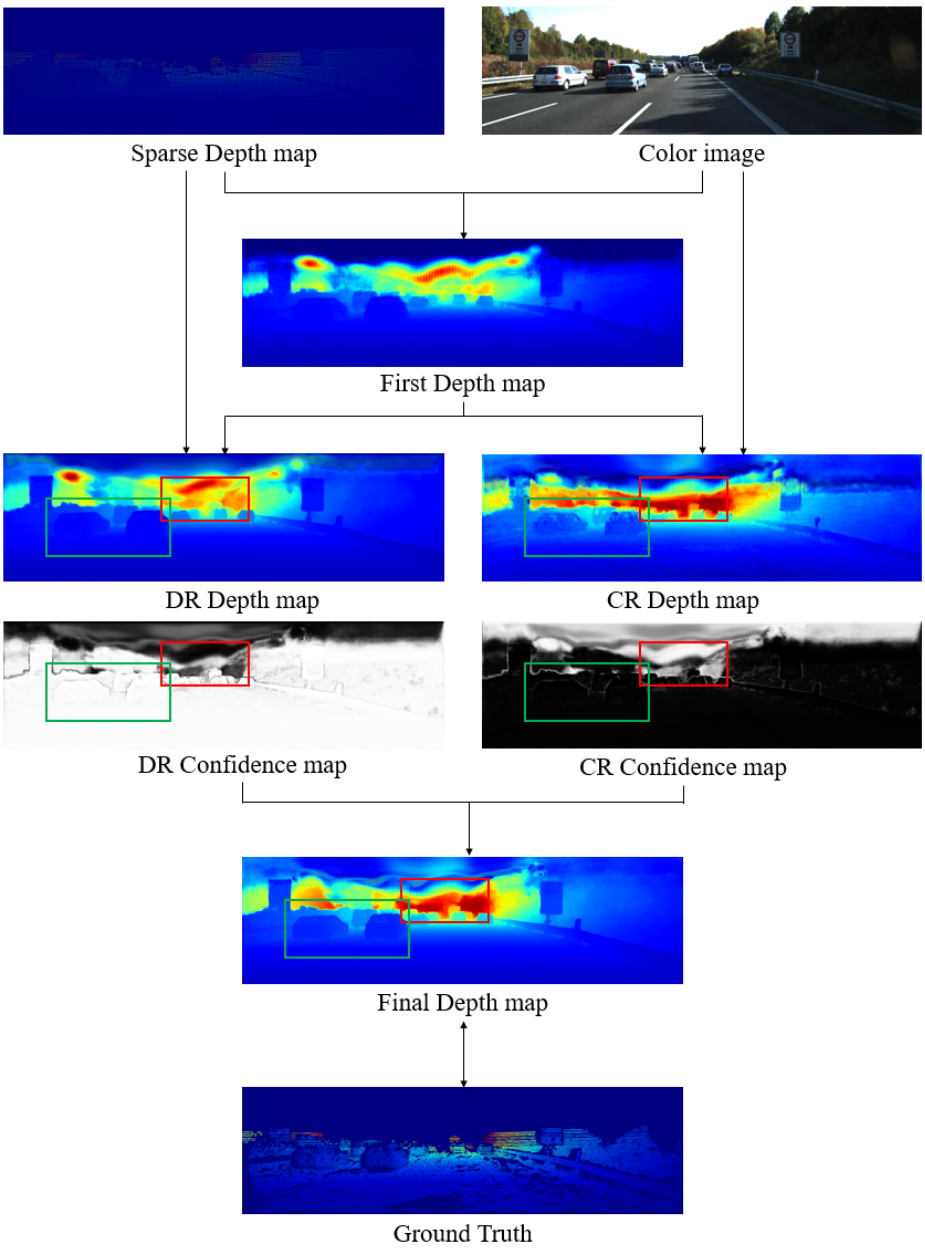

Fig. 4. Detailed qualitative results. The CR depth map is dominant on the red box, while the DR depth map is dominant on the green box.